RESOURCES for RURAL DEVELOPMENT

IN CENSUS DIVISION NUMBER 14

800-884.1

RESOURCES

FOR

RURAL DEVELOPMENT

Census Division 14

PUBLISHED BY THE RURAL DEVELOPMENT SECTION
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PREFACE

In Alberta economic and social development has always been a major goal of the people. Ever since the original settlers entered the territory great efforts were made to obtain a living from the natural resources which were in existence. Labour, capital and management were combined with raw resources of the land to provide constantly improved levels of living to the residents. As economic development took place over the years, social amenities such as churches, schools, and recreation facilities were also developed. Throughout this process some areas of the province advanced more rapidly than others. In some instances the development was erratic with "booms and busts" as various resources were exploited, new demands expanded and improved technology developed. In accordance with the location of resources and related processing and marketing, some degree of specialized production was noticeable in these areas. This overall socio-economic development was largely self-generated by the local people and the role of government was to provide a framework which permitted maximum progress.

By the 1960's, wide variation in the levels of income and employment opportunities existed between areas within Alberta as well as throughout Canada. Resources were not being utilized at optimum levels, considerable waste was occurring in soil and water management and the resulting heterogeneous pattern of socio-economic development suggested the need for a more comprehensive program to be established. It was recognized that a more active role of the local people as well as all levels of government would be necessary to achieve the objectives in this sphere. This situation was highlighted by a national conference in 1961 on Resources For Tomorrow. Papers at this meeting, delivered by authorities in the field, emphasized the gap between potential and actual accomplishments.

Culmination of the attention on the subject resulted in the federal Agricultural Rehabilitation and Development Act of 1961. This legislation provided for joint Federal-Provincial operations and financing of programs in research, resource use and socio-economic development in rural areas. The philosophy of the act was to place government in a more active role to help the people of interested areas improve their level of living. Under the Rural Development section of the act, opportunity was given for government to help local people

inventory their resources, analyze their own situations and outline possible methods of improving income and employment opportunities.

Local people in Alberta Census Division 14 (the Hinton, Edson, Evansburg, Whitecourt area) requested this kind of assistance. As a result the area became the Alberta pilot project in comprehensive "Rural Development". Here the local people in committees and through their own existing organizations will review their circumstances and study areas of potential development. To assist in this work the Farm Economics Branch of the Alberta Department of Agriculture was requested to inventory the resources of the area, analyze the existing conditions and suggest potentials for socio-economic development. This report is a condensed summary of the results of this work. A more detailed technical report is also available for those who need additional information. It is expected that this summary report will be useful to the local people of Census Division 14, individually and in group study. No doubt they will use it as resource information as they review local conditions and decide upon the direction and priorities for program development in their area.

The report was prepared under the supervision of Vic Janssen with the assistance of Ken Svenson of our Rural Development Section. Special assistance was given by Randall Meeks, Kelly Folsom and other summer research assistants. Although considerable data were available from printed materials through various government agencies and private organizations some additional field work and surveys were essential to the completion of the full picture.

It is hoped that this work will provide useful background information for the pilot area and perhaps be a general guide to study procedures in other related regions. Nevertheless it is recognized that supplementary information frequently of a detailed nature will be added to this in areas of special concern by the local people and by technical specialists from government or private business.

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TABLE OF CONTENTS

TABLE OF CONTENTS

LIST OF TABLES

Table

LIST OF FIGURES

Figure

I INTRODUCTION

Rural Development is a process which raises the level of living of a non-urban area through the co-ordinated use of labour, capital and natural resources. It refers to programs designed to stimulate and foster local action in order to achieve economic, social and cultural growth. Factors which may be used to measure this growth include; per capita income, employment, level of education, distribution of occupations within the labour force, and the types and value of goods and services produced. The present level of many of these factors are discussed in this report and some potentials for development are indicated.

The terms Rural Development and A.R.D.A. (Agricultural Rehabilitation and Development Act) are not synonymous. A.R.D.A. is one source of funds for certain Rural Development projects and there are many other sources which may contribute funds depending on the type of project undertaken. Rural Development refers to the development of the total community and is not restricted to any particular segment of the economy. In C. D. 14 Rural Development programs may operate in all towns and villages as well as the rural areas. Programs under the heading of Rural Development encompass a wide range of projects, designed primarily to improve the level of living of the residents of the area. Examples of projects that could be instigated under the Rural Development program include farm enlargement, improvement of specific recreational facilities, rehabilitation and training. Rural development is not new. Since the settlement of the country, local people have continually attempted to improve their economic and social position. This particular Rural Development program is designed so that the senior levels of government can assist local people in continuing to improve their levels of living by providing financial and technical assistance. The program is based on the premise that local people can identify most of their problems and will take necessary action to solve these problems when the required resources are made available.

It is recognized that local government agencies will be required to assist in developing and carrying out the program. In C. D. 14 a local technical panel, comprised of officials of the local government departments has been organized to assist local groups. In addition, the Extension Branch, Alberta Department of Agriculture, has appointed a Regional Resource Co-ordinator and a Rural Development Home Economist to co-ordinate the program in the area.

This publication is designed to provide background information to assist the following individuals or groups:

1. Local people in understanding problems, seeking solutions, and establishing goals and priorities for development.

2. The Technical Panel in providing resource assistance to local development efforts.

3. The Regional Resource Co-ordinator and Rural Development Home Economist in counselling local people and aiding them in developing an integrated development plan.

4. Government departments as a guide in establishing policies and programs suited to the needs of the area.

The publication is not an exhaustive inventory of resources. More information can be obtained from the Regional Resource Co-ordinator in Edson and from the Rural Development Section, Farm Economics Branch, Department of Agriculture in Edmonton. It contains a selected list of potentials for future development. As local people begin to define problem areas it is probable that further research will be necessary in these areas so that valid conclusions may be reached. After local groups have had a chance to study the problems and establish goals and priorities for the area, an overall economic and social development plan will be formulated.

It should be emphasized that the success of the program will be determined by the enthusiasm and initiative of the participants. In the final analysis, the criteria of success will be changes in the levels of living of people in the area.

II SUMMARY

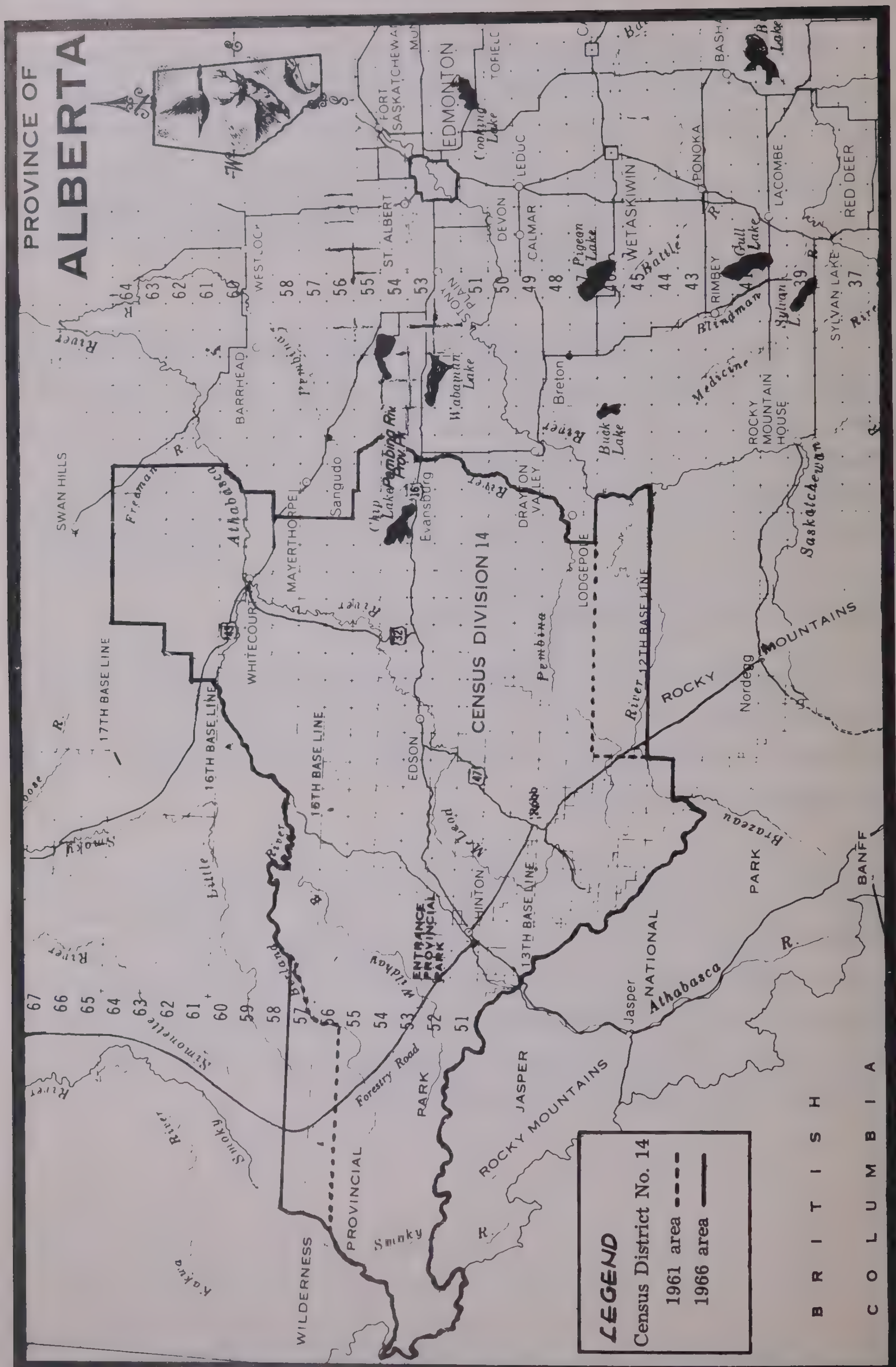
While the socio-economic conditions of the area compare favourably with the rest of the province, there appears to be considerable potential for further development. The presence of vast quantities of coal, numerous gas and oil fields, an abundant supply of water and extensive forest cover are all conducive to future economic expansion. Similarly, the use of agricultural land could be further developed, although the amount of arable land available for homesteading is practically exhausted.

Agriculture is the weakest sector of the economy. It is characterized by widespread low incomes from the sale of agricultural products, relatively poor land, and on occasion, adverse climatic conditions. The majority of farmers supplement their incomes with earnings from employment in other industries. In some cases the farm unit is too small to be economically viable. In other cases, the farm could be developed by employing more of the recommended farming practices and by the greater use of credit. The lack of local markets has also retarded the development of farms.

Recreation and tourism are grossly underdeveloped considering the resources available. Situated on a major highway, adjacent to Jasper National Park, the abundance of fishing, big game, hunting, scenery, and ghost towns all invite the expansion of the industry.

There has been a steady growth in population in the Census Division despite wide fluctuations in some parts of the area. The population has also followed provincial trends in that an ever increasing proportion is living in urban centres and the farm population has been continually declining. The education level of the population is slightly below the provincial average. Due to a lack of skills in the local labour force, industry is forced to seek employees from outside of the Census Division.

FIGURE 1


PROVINCE OF
ALBERTA
CENSUS DIVISION 14
LEGEND
Census District No. 14
1961 area
1966 area
EDMONTON
FORT SASKATCHEWAN
ST. ALBERT
LEDUC
DEVON
CALMAR
WETASKIWIN
PONOKA
LACOMBE
RED DEER
SYLVAN LAKE
RIMBEY
ROCKY MOUNTAIN HOUSE
Breton
DRAYTON VALLEY
LODGEPOLE
Evansburg
Sangudo
MAYERTHORPE
WHITECOURT
BARRHEAD
SWAN HILLS
EDSON
HINTON
Jasper
BANFF
Nordegg
Pigeon Lake
Gull Lake
Buck Lake
Wabamun Lake
Chip Lake
Cooking Lake
17TH BASE LINE
16TH BASE LINE
13TH BASE LINE
12TH BASE LINE
ROCKY MOUNTAINS
JASPER
NATIONAL
PARK
WILDERNESS
PROVINCIAL
PARK
ENTRANCE PROVINCIAL PARK
Forestry Road
Athabasca
Pembina
McLeod
Smoky
Saskatchewan
Brazeau
Blindman
Medicine
Freeman
Simonette
Little
Kakwa
BRITISH COLUMBIA

III
DESCRIPTION OF RURAL DEVELOPMENT AREA

A. LOCATION

Census Division 14, the initial rural development research area in the province, lies west of Edmonton in west central Alberta. Jasper National Park forms its western boundary, the Athabasca River much of its northern boundary and the Pembina River a major portion of its eastern perimeter. The southern border runs in a general east-west direction approximately where the Pembina River course alters from an easterly to a northerly direction. The area encompasses 11,760 square miles and, according to the 1961 Census of Canada, supports a population of 19,282, an average of 1.65 persons per square mile.

B. TOPOGRAPHY

Diversity of landscape typifies the topography of C. D. 14. High mountainous terrain with elevations in excess of 3,000 feet is common on the west, whereas flat prairie-like regions with elevations around 2,500 to 3,000 feet prevail on the east. Forests cover a major portion of the land area and soils are predominately of the dark grey and dark grey wooded variety, which are less fertile than the brown and black soils. It is estimated that only about one quarter of the area could be classified as arable land with the remainder suitable only for pasture or woodlands.

The area is drained by numerous rivers and streams, namely the Pembina, McLeod, Berland, Wildhay and Athabasca Rivers. Eventually they unite and become known as the Athabasca River system, which ultimately drains into the Arctic Ocean. There are numerous lakes in the region, the largest being Chip Lake followed by Brule Lake and Shining Bank Lake.

C. CLIMATE

The climate of C. D. 14 is classified as boreal, having one to three months with an average temperature of 50°F or more. The boreal zone is characterized by long severe winters, short summers with widely fluctuating conditions and generally low percipitation. Over most of the area, about 50% of the years precipitation normally falls as rain in the April to July period. About one quarter of the annual precipitation falls as snow, which usually appears in late October and disappears in early April. Precipitation averages 20-22 inches for a normal year throughout most of the region.

Monthly and annual temperature averages indicate that there are generally 60-80 frost free days in a year, critically close to the minimum required for grain to reach maturity. Generally, July is the warmest month with the maximum temperature averaging 73° F. January is the coldest month with the maximum temperature averaging only 18°F. The mean temperature for January is several degrees below 0°F.

Climate is determined largely by the cordillera mountain ranges which form an effective barrier to the marine influence of the Pacific. Winter temperatures vary depending upon the nature and direction of Arctic air masses. At the extreme western edge of the area, winter temperatures are occasionally modified by warmer Pacific air, called a "chinook".

D. SETTLEMENT

Towns and villages in C. D. 14 are distributed along the two major transportation lines, the railroad and the highway. Serving the area are

Highway 16 and the Canadian National Railway, both major east-west trade and transportation arteries. In addition, Highway 34 and a CNR branch line cut across the north-east sector of the area, the highway connecting the rich Peace River country with the area.

According to the 1961 Census, 45% of the people in C. D. 14 lived in one of the following communities: (1961 population in parentheses) Edson (3,198), Hinton (3,529), Whitecourt (1,054), Evansburg (452) and Wildwood (479). A description of each settlement follows.

Edson, the "gateway to the Rockies", is the geographic center of the region. It is a busy center with lumber, pulp, gas, oil and sulphur developments as focal points. Numerous stores and services in the town are patronized by a large segment of the people in the region.

Hinton, located only 16 miles from the entrance of Jasper National Park, is a thriving community owing its prosperity to the presence of Alberta's only pulp and paper mill. The town commands a magnificent view of the Rockies.

Nestled in a valley near the junction of the McLeod and Athabasca Rivers is Whitecourt. Lumbering and gas and oil are the chief industries. In addition, a large pulp and paper mill is planned which will be a definite boost to the economy.

Wildwood and Evansburg are villages located near the eastern boundary of the area. Interests are primarily agricultural as some of the better farming land is in this locality.

There are several smaller hamlets which are small service and market centers for rural communities.

E. ECONOMIC DEVELOPMENTS

Extensive natural resources, particularly, timber, coal and oil and gas have had a major impact upon the area at one time or another, serving to bring about numerous changes with the passage of time.

Initial developments were in the lumber industry near the turn of the century and large, thriving, saw and planing mills were established throughout the area. However, poor management of timber resources resulted in the absence today of once common fine stands of timber. As a result the lumbering industry has suffered.

Coal mining activities also developed during the early part of the 20th Century, particularly in the Coal Branch region. Production was high through the years, with sales peaking at over $10 million in 1949. However, production value dropped to only $82,000 in 1964. Alternative sources of power e.g. oil and gas, were the main reason for decreasing importance of this industry.

In Census Division 14, the decline of the coal industry coincided closely with the increase of the local gas and oil industry. Numerous producing gas and oil fields and processing plants for extracting petroleum by-products e.g. sulphur, hydrocarbons, etc. have a combined production whose value exceeds all other segments of the economy.

Another major development occurred in the 50's with the construction of a pulp and paper mill at Hinton. A similar mill is planned for the future at Whitecourt. Besides providing employment for a third of the labour force, the industry is utilizing the timber previously unmarketable for lumbering purposes and in the process is instigating a controlled reforestation program.

IV HUMAN RESOURCES

A. POPULATION

Census Division 14, with a population density of 1.65 people per square mile compared to 5.02 for the province as a whole, is one of the less densely populated areas in the province. However, population densities in the area range from a high of 4.10 in Improvement District 95 to a low of 0.14 in I. D. 96, indicating uneven population distribution.

Since 1911 when the population of C. D. 14 was 3,516 persons, there has been a five fold increase to its present total of 19,282. The population has fluctuated according to the demand for primary products, e.g. coal and agricultural products etc. I. D. 79 has had a wide fluctuation in population from 375 persons in 1911 to a peak of 3,992 in 1951, due to the development of coal mining, and a drop to 667 persons in 1961 because of the subsequent loss of demand for this product. Hinton has also had several fluctuations due to the coal and forest industries. Edson has experienced a relatively steady growth since 1911, reaching a population in 1961 of 3,198 persons, which was the second largest town in the Census Division. Hinton was the largest town in 1961 but has been surpassed once again by Edson in 1964.[1] The following table gives the population growth of the area since 1911. (See Table 1.)

Census Division 14 is experiencing a trend to urban living also evident in Alberta and Canada as a whole. The 1961 Census of Canada defines an urban centre as any centre of 1,000 population or over. Census Division 14 has three urban centres.

TABLE 1

POPULATION OF CENSUS DIVISION 14

1911 - 1961

	1911	1921	1931	1941	1951	1956	1961
I. D. 78	1,086	1,594	3,177	4,946	3,724	3,444	3,484
I. D. 79	375	1,446	3,293	3,879	3,992	2,234	667
I. D. 95	1,417	1,222	1,860	2,560	2,561	4,696	3,638
I. D. 96	56	543	121	85	299	314	430
I. D. 109	85	734	919	1,312	1,506	1,693	2,351
Edson	497	1,138	1,547	1,499	1,956	2,560	3,198
Hinton	—	—	—	—	—	—	3,529
Whitecourt	—	—	—	—	—	—	1,054
Evansburg	—	—	—	—	—	358	452
Wildwood	—	—	—	—	405	547	479
C. D. 14	3,516	6,677	10,917	14,281	14,443	15,846	19,282

Census of Canada 1961
Bulletin 1.1-10
Table 6

1. Source: Municipal Affairs Population Estimates.

During the decade from 1951 to 1961 the rural farm population of Alberta decreased from 36% of the total population to 22%. Comparable figures for Census Division 14 are 35% and 22% respectively representing a loss in absolute numbers of 798 persons in the rural-farm population of C. D. 14. The trend in Alberta is for the rural-non-farm population to increase numerically but to decrease as a proportion of the total population. This trend is also evident in C. D. 14 although it is obscured because of the transition of Hinton and Whitecourt from rural-non-farm to urban centres. The following table shows the figures corresponding to the above trends.

TABLE 2

POPULATION BY RURAL FARM, RURAL NON-FARM AND URBAN

1951, 1956, 1961

1956 DEFINITIONS*

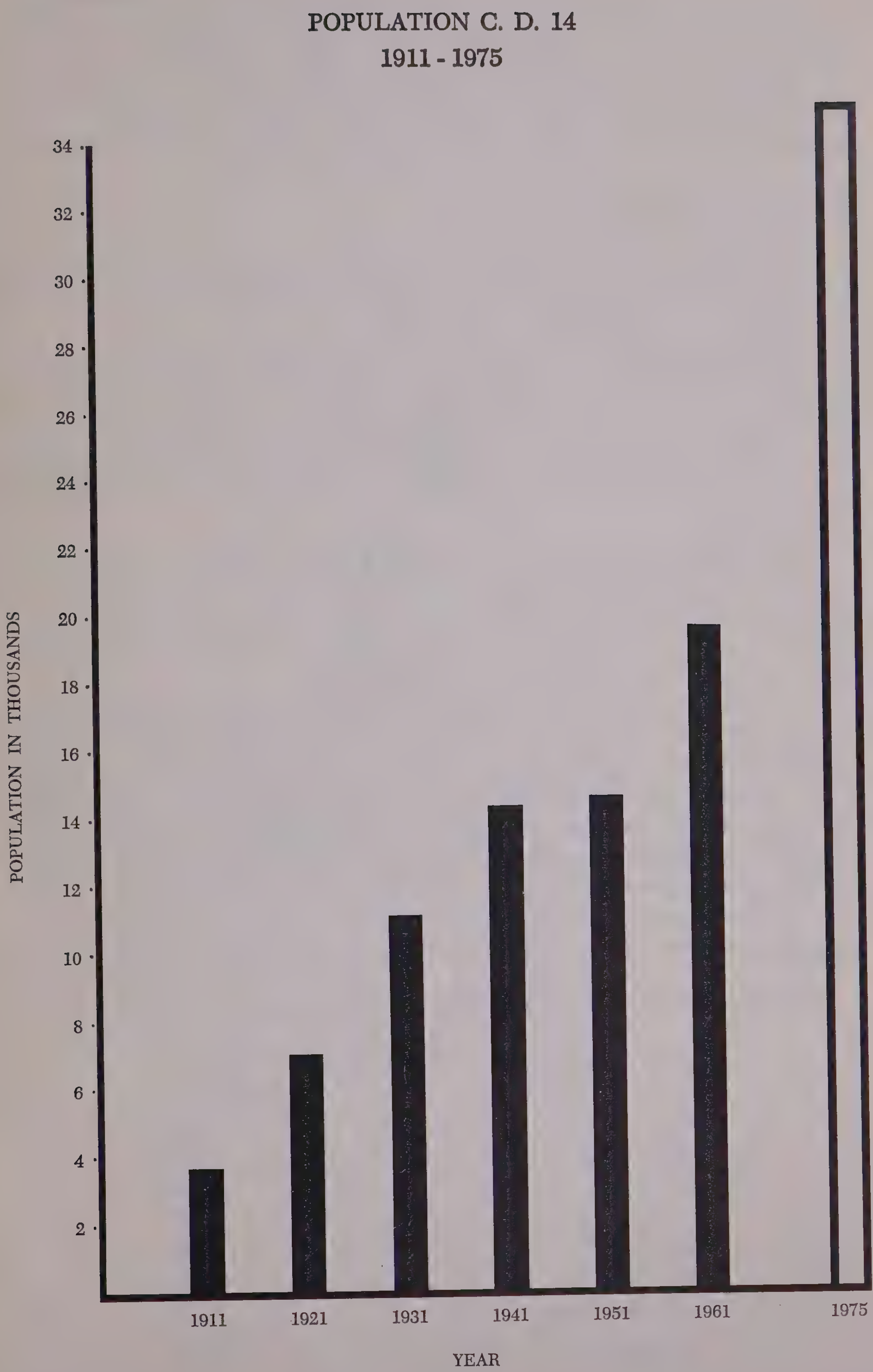
YEAR	ALBERTA				CENSUS DIVISION 14			
	TOTAL	RURAL		URBAN	TOTAL	RURAL		URBAN
		Farm	Non Farm			Farm	Non Farm	
1951	939,501	339,376	149,627	450,498	14,443	5,021	7,446	1,956
1956	1,123,116	327,201	160,091	635,824	15,846	4,909	8,377	2,560
1961	1,331,944	289,081	191,287	851,576	19,282	4,223	7,278	7,781

Source: Census of Canada 1961 Bulletin 1.1

The sex ratio is a figure which gives the number of males for every 100 females. A high sex ratio is characteristic of rural or a "frontier" area. The more "urbanized" an area becomes the lower the sex ratio falls. In Alberta the sex ratio in 1951 was 110 and by 1961 this had decreased to 107. The sex ratio in C.D.14 is much higher than the provincial average. In 1951 it was 128, rising to 135 in 1956, and decreasing by 1961 to 124. The rise in 1956 was probably due to the influx of construction workers to Hinton during the construction of the mill. When these workers left and were replaced by the more permanent employees the sex ratio continued its downward trend. As the census division becomes more urbanized the downward trend can be expected to continue.

The age of the two sexes has an influence on the composition, education and skill of the population. In areas where there is a high birth rate and a high death rate there will be a relatively large number of children and few older people. In C. D. 14 in 1961 there were a relatively large number of persons under 15 years of age, comparatively few between the ages of 15 and 30, and about the average number over 30 years of age. The birth rate for Alberta in 1957 was 30.79 per one thousand population decreasing by 1961 to 29.22 per one thousand population. Comparable figures for C. D. 14 show

FIGURE 2


POPULATION C. D. 14
1911 - 1975
POPULATION IN THOUSANDS
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
1911
1921
1931
1941
1951
1961
1975
YEAR

an opposite trend with a birth rate in 1957 of 30.02 rising to 35.33 in 1961. The death rates for C. D. 14 follow the downward Alberta trend. In Alberta there were 7.12 deaths per one thousand population in 1957 and 6.65 per one thousand population in 1961. Comparable figures for C. D. 14 are 7.04 and 6.32. These figures indicate that there has probably been an influx of young families into the area due to developments in the pulp and gas and oil industries.

B. POPULATION PROJECTIONS

Population projections are usually based upon the following formula: Future Population = Present Population + Natural Increase (Surplus of births over deaths) + In-migration – Out-migration.

In computing the future population of C. D. 14 the natural increase component becomes very small and the migration components become of utmost importance. Studies of migration tend to indicate that economic opportunity is one of the most important factors influencing migration. If there are no jobs available in an area people will move out. If there is a demand for labour, people will move in.

The section on Industry and Commerce gives a summary of the labour force by industry under the heading of economic base. This table (Table 4 in industry and Commerce) gives a projection of the demand for labour to 1975.

In order to obtain total population from the projected labour force requirements it is necessary to know what percentage of the total population is in the labour force. In 1961, the proportion of the total population of Canada in the labour force was 35.48% while the figure for Alberta was 36.75%. The figure of 36% was chosen as the factor to be applied to the labour force projections to obtain the projected population. Table 3 gives the projected population to 1975 for C. D. 14.

TABLE 3

GEOGRAPHICAL DISTRIBUTION OF PROJECTED POPULATION
1975

	Population
Edson	9,000
Hinton	6,500
Whitecourt	6,500
Evansburg	900
Wildwood	600
Rural Farm	3,000
Rural Non-Farm	8,000
Total	34,500

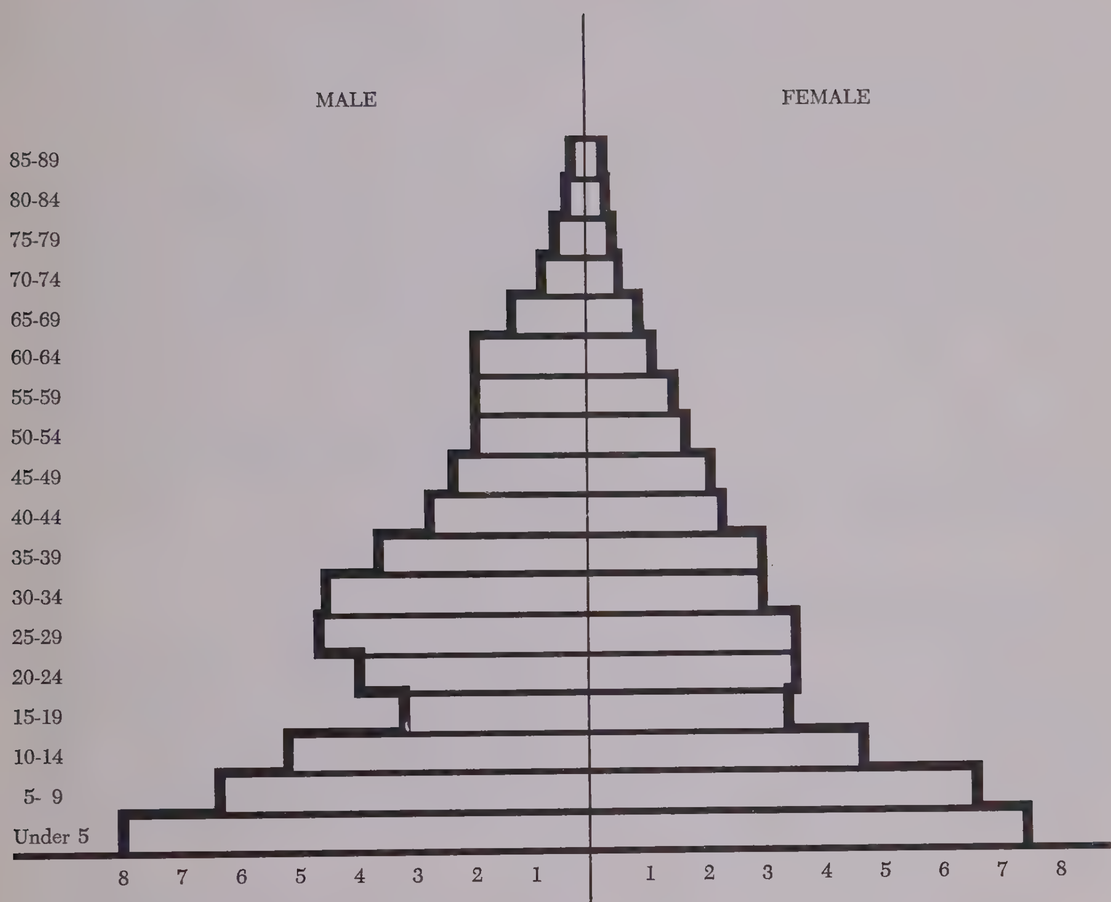
FIGURE 3

PERCENTAGE POPULATION

By age group and sex

C. D. 14

1961



PERCENTAGE OF TOTAL POPULATION

V EDUCATION AND TRAINING

A. EDUCATION REQUIREMENTS AND LEVELS

Education is one of the most important factors in the development of any area. Employers insist upon a certain minimum level of education before an applicant is accepted for many jobs and these requirements are continually rising. The development of industry in an area will therefore bypass those who do not have the educational qualifications and who often are the people who are most in need of the income that could be derived by working in new expanding industries. At the present time new industry is moving into C. D. 14 but often the personnel qualified for the jobs created are not available within the Census Division.

According to the 1961 Census of Canada, 27% of the population of Census Division 14 was attending school as compared with 28% for all of Alberta. Of the 73% of the population who were not attending school, 52% had grade six or less and 93% had grade ten or less. Only 7% of the adult population had more than grade ten. The provincial average was 12%. As industrialization proceeds this education level will rise, probably due more to the in-migration of more highly educated people than to the raising of the educational level of those already residing in C. D. 14. Programs should be initiated which would raise the educational level of local people.

B. EDUCATION COSTS

Census Division 14 includes all of the Edson School Division and the western end of the Lac Ste. Anne School Division, as well as a small separate school district and a very small portion of the Barrhead School Division. Figures in this report are for the Edson School Division and the Lac Ste. Anne School Division only, although the trends found will probably apply to the other portions of the Census Division as well.

The cost per student has risen steadily in the period from 1959 to 1964. During this period the cost per student in the Edson School Division rose from \$341.44 to \$425.94, an increase of 25%. In the comparable period expenditures per student in the Lac Ste. Anne School Division rose from \$301.26 to \$411.69, a 37% increase. The average cost per student for Alberta was \$399.72. The cost per student will probably continue to increase as rural areas attempt to compete with urban areas for teachers and as the demands for vocational and other specialized courses increase.

C. TEACHING STAFF

Approximately 54% of the cost per student today (1964) can be attributed to the cost of teachers. The remainder of the cost is distributed, approximately,

as follows: 1.8% for administration, 2% for instructional aids, 13% for plant operation and maintenance, 12% for conveyance of students, 1.4% for capital expense, and 15.5% for debt charges. The debt charges category is the only category that has risen out of proportion to the general increase in costs since 1959.

The qualifications of the teaching staff have gradually increased over the same period. In 1959, 14% of the teachers in the Edson School Division had degrees and by 1964 this had risen to 24%. Comparable figures for the Lac Ste. Anne School Division are 6% and 16%.

D. STUDENT POPULATION

The student population has increased very rapidly over the five year period. In 1959 there were 3,114 students in the Edson School Division and this had increased to 4,278 by 1964, an increase of 37%. The student population of the Lac Ste. Anne School Division rose from 2,453 to 3,166, an increase of 29%. In spite of the rapid growth in student population, the number of students per teacher has not fluctuated significantly.

E. EXAMINATION RESULTS

Grade nine and grade twelve are important years from the standpoint of examinations. In the Edson School Division the percentage of grade nine students with passing marks rose from 82% to 91% over the period 1959 to 1964. The Lac Ste. Anne School Division also showed an increase from 80% to 84% over the same period. Grade twelve examination figures are shown by paper and not by student and in the Edson School Division the percentage of papers passed fell from 86% in 1959 to 77% in 1964. The Lac Ste. Anne School Division experienced an opposite trend in the percentage of papers passed, rising from 74% to 86%.

F. DROPOUTS

Two methods were used in order to gain some indication of the dropout situation. One method was to select several grade 9 classes and trace the student numbers through successive grades to grade 12. The results, which showed consecutive losses each ensuing year, indicate that the period between grades nine and ten is critical because the proportionate change is greatest at this time. However, each of the five classes lost about 50% of its students between grades nine and twelve. This figure is probably a conservative estimate of dropouts because there was a net in-migration during the time period under consideration for C. D. 14.

The second method was to list all those students in grade seven, six years ago (1959), and trace them individually to grade twelve. Of the 319 students

in grade seven in 1959, 171 graduated from grade nine and only 40 (13%) obtained a diploma or matriculation. Of the grade nine graduates, 29% graduated from grade 12. Using this method, approximately 70% of the students in grade nine drop out before graduation from grade 12. This is probably an overestimate because some[1] of the students in this survey left the province and could not be traced. Whichever method is used, the dropout estimates, 50% and 70% respectively, are extremely high.

G. PHYSICAL FACILITIES

The Edson School Division has one high school, one junior high school, and two junior-senior high schools. There is one school which carries grades one through twelve and one which has grades one to nine only, There are twelve other schools with grades eight or less. There are also schools in Whitecourt, Blue Ridge and Anselmo and a high school in Whitecourt. The high school programs offer basic matriculation courses with a limited selection of electives.

H. ADULT EDUCATION

Outside of the regular courses offered by high schools, technical institutes, and universities there are many courses, partially supported by government funds, which are suitable for adult training and education. For example, in the past the Vocational Education Division of the Department of Education has assisted in such courses as pipeline welding, barbering, hairdressing, nurses aid training, and small business management. The Department of Agriculture has courses such as the Farm and Home Management Courses, which usually result from a specific problem and demand by local group and are initiated on this basis. Another course which may be of value is the Vocational Preparatory Training Course offered by the Division of Vocational Education to upgrade the educationl qualifications of workers in mathematics, science, and other subjects so that they are prepared for further training in fields that require these basic qualifications.

I. SUMMARY

In the light of the above discussions several problem areas can be pointed out. In general, C. D. 14 has a lower educational level than the provincial average. Some attention could be profitably directed to some adult education programs to change this position. As costs per student and numbers of students continue to increase, some anticipatory planning is necessitated. Additional investigation into the problem of the decline of the proportion of grade twelve papers passed is advisable as well as action to alleviate the dropout problem.

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1. The exact number is unknown because when a student either quit school or left Alberta he no longer appears on the Alberta records and no distinction is made between the two alternatives.

VI INDUSTRY

VI INDUSTRY

A. ECONOMIC BASE (AND LABOUR FORCE)

Usually industry is classified as primary, secondary or tertiary according to the kind of good or service produced and the stage of production. These are covered later in this chapter. In addition industry may be classified; firstly, into those industries which provide the basic employment and income on which the rest of the local economy depends and secondly, the other industries in the economy which depend on the basic wealth producing sector. Basic wealth producing industries produce goods or services for markets outside the area. On the other hand, the second group are primarily engaged in producing goods or services demanded by persons employed in the first group and consequently produce for the local market.

Pulp is produced in the area for sale in other parts of the world and is a basic wealth producer for the "export" market whereas the local storekeeper, who sells to the employees of the pulp enterprise serves the "domestic" market. Export market in this sense refers to a market outside Census Division 14.

The primary industries are mainly export, but may also serve the domestic market in some cases. Some of the fluid milk produced in the area may be processed and sold to local residents and consequently this portion cannot be classified as an export. Similarly some segments of the secondary industry such as bakeries serve the domestic market, although the majority of manufacturing (pulp) is directed to export markets. Again the tertiary industry may be subdivided into the two classes according to whether the goods or services marketed are consumed by local residents or outsiders. Recreation, and tourism are export activities if the persons using the facilities come from other areas.

Table 4 shows the employment in the various industries as classified by the Standard Industrial Classification. In each industry, an estimate was made of the percentage of the labour force that was engaged in the export sector. The industry with the largest number employed in the export category may be classified as the prime mover of the local economy. It is evident that in 1961, the forest industry was the prime mover.

In order to indicate the trend of the economy in the future, the labour force by industry and by export or domestic activity was estimated for 1975. In some instances, little information was available on which to base an estimate. No major change in technology was taken into consideration, although new methods of operations will likely be introduced before 1975. This would alter the labour force required.

The implications of the export domestic activity concept is that for each additional job created in the export category, a fairly constant ratio of jobs are created in the domestic sector.

It is noteworthy that in 1951 there were 2.5 persons employed in the export sector for every one person in a domestic activity. By 1961 the ratio had changed to 1.2 to 1.0. The ratio projected for 1975 is one to one. This continuing change results from the greater demands for goods and services

TABLE 4

ECONOMIC BASE EMPLOYMENT DATA FOR CENSUS DIVISION 14

	Employment 1951	Employment 1961	Change 51-61	Estimated Employment 1975	Estimated Export Emp. 1951	Estimated Export Emp. 1961	Estimated Percent Export Emp. 1961	Estimated Export Emp. 1975
Agriculture	1,345	955	–390	750	1,210	860	90	675
Forestry	448	858	+410	1,400	439	841	98	1,377
Fishing and Trapping	57	11	– 46	10	55	11	98	10
Mines, oil and gas	916	451	–465	500	897	442	98	454
Manufacturing	603	861	+258	1,800	590	844	98	1,764
Construction	257	621	+364	1,000	128	311	50	500
Transport, Communication and Utilities	652	796	+144	1,500	326	398	50	750
Trade (Wholesale and Retail)	362	721	+359	2,000	18	14	2	40
Finance, Insurance and Real Estate	36	77	+ 41	140	0	0	0	20
Business, Personal and Community Services	679	948	+269	3,000	170	237	25	750
Public Administration		242		350	0	0	0	0
TOTAL	5,355*	6,541*		12,450	3,833	3,558		6,225

Ratio of Export to Domestic employment: 1951-2.5:1, 1961-1.2:1, 1975-1.1:1.

Source: Census of Canada, 1951 Volume IV, 1961 Bulletin 3:1.

*Total labour force includes persons not reporting industry. These figures are 6,796 for 1951 and 6,716 for 1961.

by production workers and the greater availability of the goods and services within the area, as well as increased productivity in the export sector.

In the long run the growth of the area is dependent on the number of workers employed in the basic sector.

The following paragraphs provide a brief explanation of the industrial classifications of Table 4 and in some cases, include comments on potential development.

1. AGRICULTURE

While the number of farms are expected to drop below 700 by 1975, the number of workers including owners, other members of families working on farms, and hired hands are estimated at 750. This is based on the assumption that the definition of a farm as an agricultural holding of one acre or more with an annual income from the sale of agricultural products of $50 or more, will remain constant.

The projected figure is somewhat misleading because a portion of the total will be made up of residential farmers who in a real sense are not farmers.

The proximity to the industrial labour markets, the rapid increase in the price of land and the favourable tax base will encourage the retention of land by the part time farmer.

Also included in the projected figure are persons serving the agricultural industry such as veterinarians.

2. FORESTRY

Employment in forestry will increase with the establishment of a pulp mill at Whitecourt, although it is anticipated that some jobs will disappear when lumber operators presently cutting in the pulpwood leases or reserves complete their operations. However, additional employment in the industry will occur when other kinds of forest operations are initiated in the next few years. The introduction of new technology in cutting or felling trees or in transportation may result in modifications to projected figures.

3. MINING

Mines and quarries include the mining of coal, limestone gypsum, petroleum and gas wells, natural gas processing plants, oil drilling and exploration, and peat moss mines. The development of mines and quarries may be accelerated if markets are improved or if new methods of conducting operations are developed. The influence of the railroad into the north-west from Solomon is unknown at the present time. However, it is anticipated that coal mining will be resumed, peat moss mining will be expanded, and oil exploration and drilling will decline. Mining of other industrial minerals may also increase. The number employed in mining will probably increase even though the 1961 figure includes a large number engaged in oil exploration, a sector which has declined recently.

4. MANUFACTURING

Manufacturing plants in the area includes the pulp mill, planing and saw mills, the dairy, bakeries, the newspaper, and other small enterprises. It also

includes establishments that might be engaged in the manufacturing of petroleum and coal products such as coking plants, fuel briquettes, road emulsions and roofing compounds.

5. CONSTRUCTION

Building, highway and street construction are included in this category as well as construction of projects such as gas lines, telephone lines, dams, etc. Contractors engaged in general maintenance and repair. e.g. carpentry, electrical work, painting, etc. are considered to be in the construction industry.

The construction of industrial plants and residences will accelerate rapidly in the immediate future but may decline by 1975. On the other hand the employment in maintenance and repair will expand steadily.

6. TRANSPORTATION, COMMUNICATION AND UTILITIES

Transportation, communication and other utilities include air, water, rail and road transportation, as well as pipeline transport, taxi cabs, and touring agencies. Employment in this category is expected to double due to the increase in physical volume of production, the resources railroad, and larger quantities of goods for domestic consumption.

7. TRADE

Trade includes both retail and wholesale trade. With larger populations this sector will grow. Furthermore, as the area matures, a greater variety of goods will be offered locally, which in turn will accelerate the increase in labour force.

8. COMMUNITY, BUSINESS AND PERSONAL SERVICE

Community, business and personal service includes a large portion of the domestic employment such as schools, health and welfare services, doctors, dentists, nurses, a wide range of recreational services, accountancy, and legal services, etc. Personal services include a variety of establishments such as hotels, restaurants, beauty and barber shops, cleaners, fishing, hunting and tourist guides.

Recreation and tourism will be the primary export activity in this sector. The potential for development of recreation and tourism dictates an increase in employment.

Since the turn of the century, statistics have indicated that the percentage of the national labour force engaged in providing services is increasing. Following this trend and because of the rapid increase in the export sector, it is anticipated that the rate of growth of employment in community, business, and personal services will exceed the rate of growth of the total population in the area.

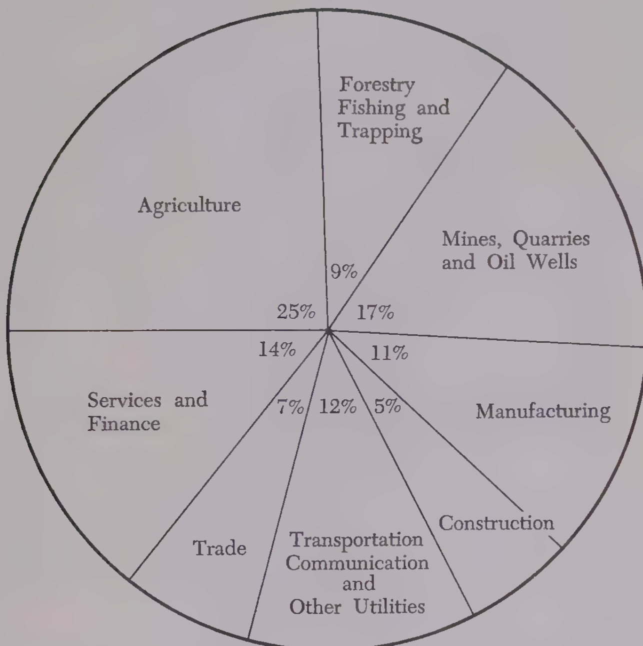
9. PUBLIC ADMINISTRATION

Similarly the growth of the area will result in more persons employed in public administration in both the local and provincial levels of government. This category includes persons employed by governments at the federal, provincial and local levels as well as those engaged in defence.

Figures 4, 5, and 6 show the proportions of labour force by industry in 1951, 1961 and that projected for 1975.

FIGURE 4

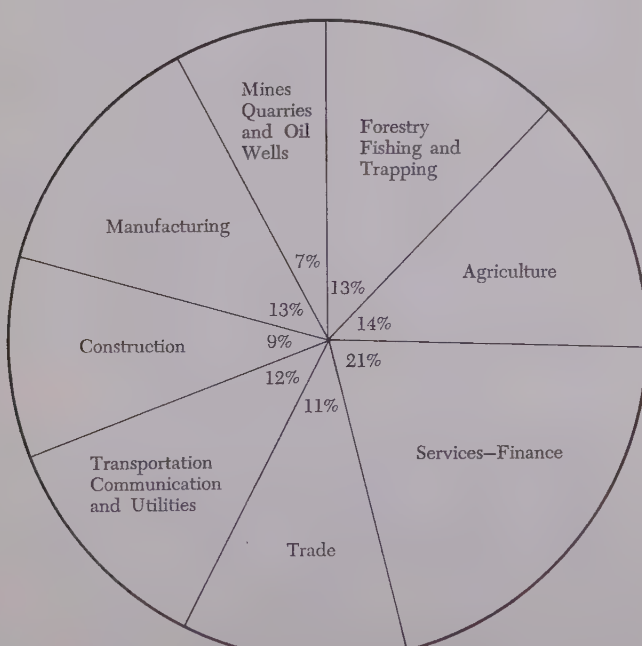
PERCENTAGE LABOUR FORCE BY INDUSTRY FOR CENSUS DIVISION 14 1951



Source: Table 4

FIGURE 5

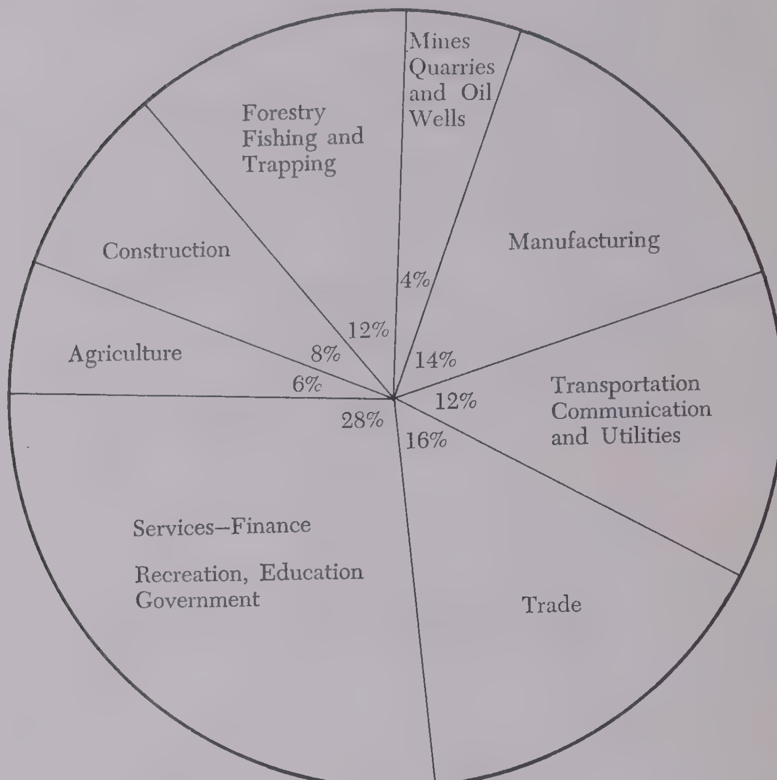
PERCENTAGE LABOUR FORCE BY INDUSTRY FOR CENSUS DIVISION 14 1961



Source: Table 4

FIGURE 6

PERCENTAGE
LABOUR FORCE BY INDUSTRY FOR C. D. 14
PROJECTED TO 1975



B. PRIMARY INDUSTRY

Primary industry refers to industries which deal with the first stage in the production of a commodity. In Census Division 14 these industries include forestry, agriculture, mining and quarrying, and fishing. The relative importance of the primary industries for 1951 and 1961 is indicated in Figure 7. The difference in area between the 1951 graph and the 1961 graph indicates the relative increase in value of primary products over the ten year period.

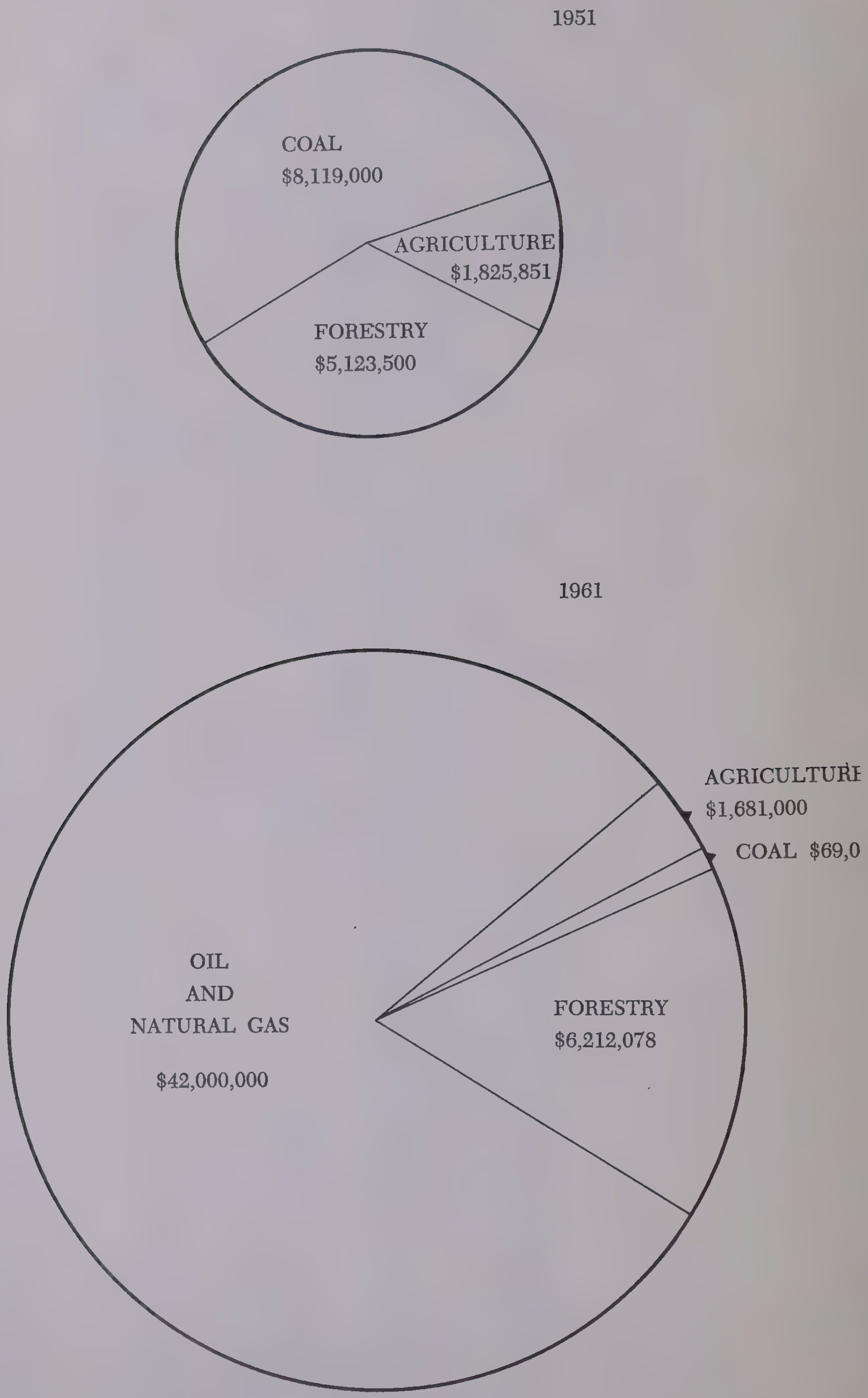
The total output of primary industries in 1951 was approximately fifteen million dollars compared to fifty million in 1961. Total output in 1965 would be close to 100 million dollars.

While the output of gas and oil is greater than any other primary product, the industry does not employ labour in the same proportion. The most extensive use of labour occurs during the exploration phase. New development in connection with the extraction of sulphur has added to the labour requirements.

The production of forest products is next in order of value of sales. The value of the product is measured at the time it enters the sawmill or

FIGURE 7

PRIMARY INDUSTRY IN C. D. 14



Source: Alberta Bureau of Statistics Special Tabulations.

pulp mill, or is sold as round timber. The value of this resource will increase with the establishment of a new pulp mill.

Agricultural production has moderately increased and is expected to expand gradually in the future. The majority of the expansion will originate from half the farmers. The proximity of labour markets will perpetuate the small or part-time farmer.

Coal mining may regain some of its former prominence with the opening of the Smoky River field as well as the resumption of operations in the Coal Branch.

Peat moss production will likely develop into a major industry as there is an ample supply of peat and the market is expanding.

Limestone quarrying appears to be solidly established. Other minerals that could be developed include gypsum, bentonite and marl.

C. SECONDARY INDUSTRY

Secondary Industry includes manufacturing and construction.

At present the North-West Pulp and Power Company at Hinton is the largest manufacturing firm in the area and accounts for approximately eighty per cent of the selling value of all factory shipments. This enterprise has stabilized the local economy and has provided employment, directly and indirectly, for a quarter to a third of the total labour force. The mill planned for the vicinity of Whitecourt by the MacMillan, Bloedel and Powell River Company will add materially to the economy.

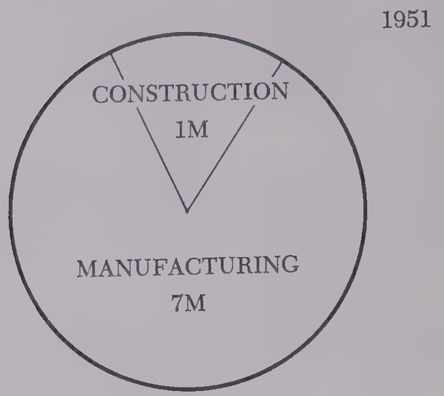
Saw mills and planing mills accounted for the majority of manufacturing in 1951. However, the output from this sector consistently declined in recent years, but should level off with the advent of the quota system. Other manufacturing includes a dairy, one newspaper, three bakeries and miscellaneous wood products.

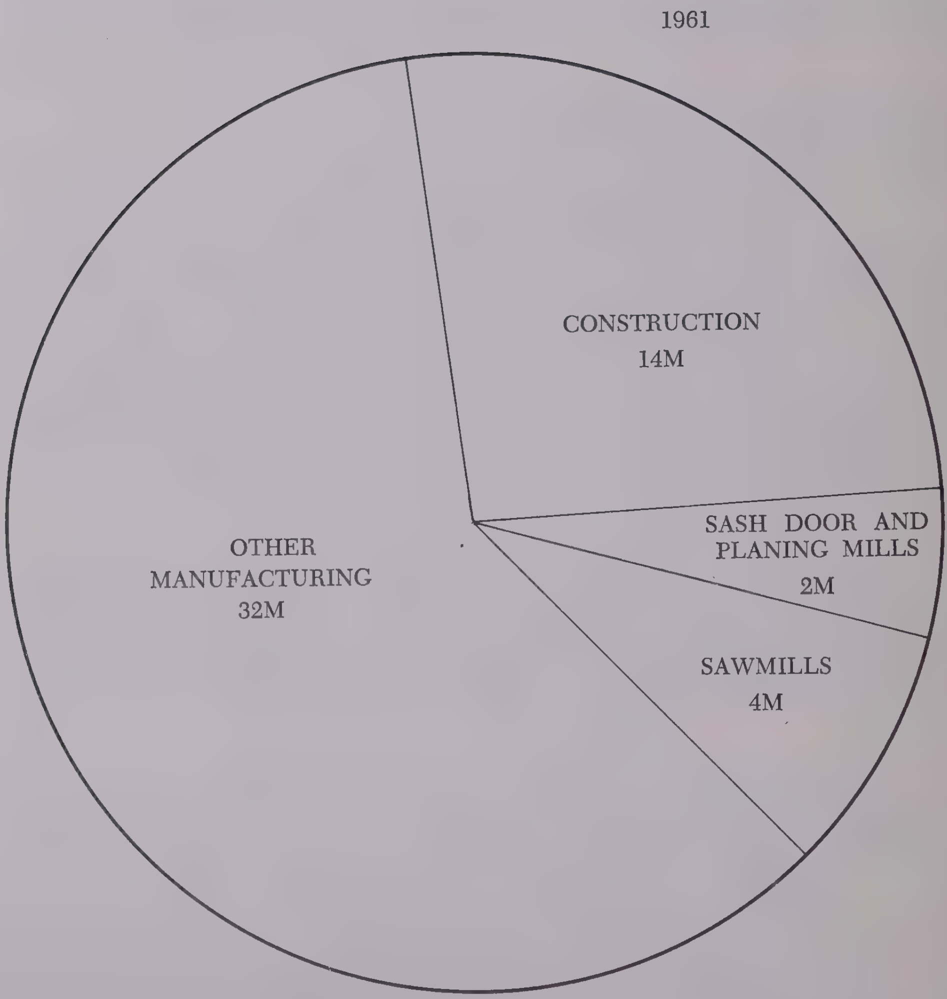
Construction employs approximately 9% of the labour force. While value of construction projects cannot be obtained accurately, the industry has shown remarkable growth and promises to maintain the pace in the immediate future. The MacMillan, Bloedel and Powell River Co. plant at Whitecourt, the resources railroad, and pipelines are among the major enterprises already planned. It is anticipated that most of the skilled labour force for these developments will have to be brought into the area.

The rapid rise of secondary industries is demonstrated in Figure 8. Total output in 1951 was eight million dollars compared to fifty two million in 1961. In 1965 the total output would be about the same.

FIGURE 8

SECONDARY INDUSTRY





Selling value of manufacturing and value of construction in millions of dollars.

Source: Alberta Bureau of Statistics Special Tabulations.

D. TERTIARY OR SERVICE INDUSTRY

This refers to the non-goods producing sector of the economy. It includes the retailing and wholesale trade, business and community services, recreation, education and government.

The number of retail establishments increased by 61% in C. D. 14 compared to an increase of 18% in the province between 1951 and 1961. However, during this period many stores were abandoned in the Coal Branch, which means that there was a net increase in the number of establishments in the survey area in the last ten years. The average dollar value of sales per store increased 36% compared to the provincial figure of 51%. Business and personal services witnessed remarkable growth, both in the C. D. 14 and in Alberta. The number of establishments increased by 75% in the survey area compared to 71% for Alberta. Receipts per establishment, however, were much higher in the province.

Data on employment and income is not available for recreation as a separate entity but it is anticipated that this sector will expand as the area develops.

Table 5 shows the number of retail and service establishments in C. D. 14 and Alberta for the years 1951 and 1961.

TABLE 5

NUMBER OF RETAIL AND SERVICE ESTABLISHMENTS

	C. D. 14		ALBERTA	
	1951	1961	1951	1961
Retail	118	190	8,412	9,902
Services	68	117	4,227	5,921

Source: Census of Canada 1951 and 1961. Bulletin No. 6.1

E. INCOME OF NON-FARM FAMILIES AND PERSONS NOT IN FAMILIES

Of the fifteen census divisions in the province, Census Division 14 ranks fifth in average earnings per non-farm family. In 1961 there were 3,237 families in Census Division 14 earning an average income of $5,105, compared to the provincial average of $5,602. In all there were only four divisions in which earnings were higher than in Census Division 14. Each of these four included a major urban centre, namely, Calgary, Edmonton, Red Deer, and Lethbridge, leaving Census Division 14 with the highest family earnings of those divisions which include no large urban centres. Only Census Divisions 6 and 11 (Calgary and Edmonton) had incomes above the provincial average.

For persons not in families a similar situation prevails. The 1,471 persons not in families earned an average of $2,164, an average which ranked fifth among Alberta Census Divisions. See Table 6.

A break-down of the non-farm families by income group for Alberta reveals that 20.7% of the families earned under $3,000 in 1961. The corresponding percentage for Census Division 14 is 25.0%, which represents a significantly larger proportion of families in the marginal or sub-marginal subsistence category than the provincial figure. In the income bracket $6,000-$9,999, the respective percentages of non-farm families for Alberta and Census Division 14 show 25.4% and 21.8%, a difference of 3.6%. An even smaller variation 1.2%, is shown for the $3,000 - $5,999 income group. However, in all cases it should be kept in mind that only two census divisions are above the provincial average and it is therefore usual for incomes to be generally lower than the provincial figures.

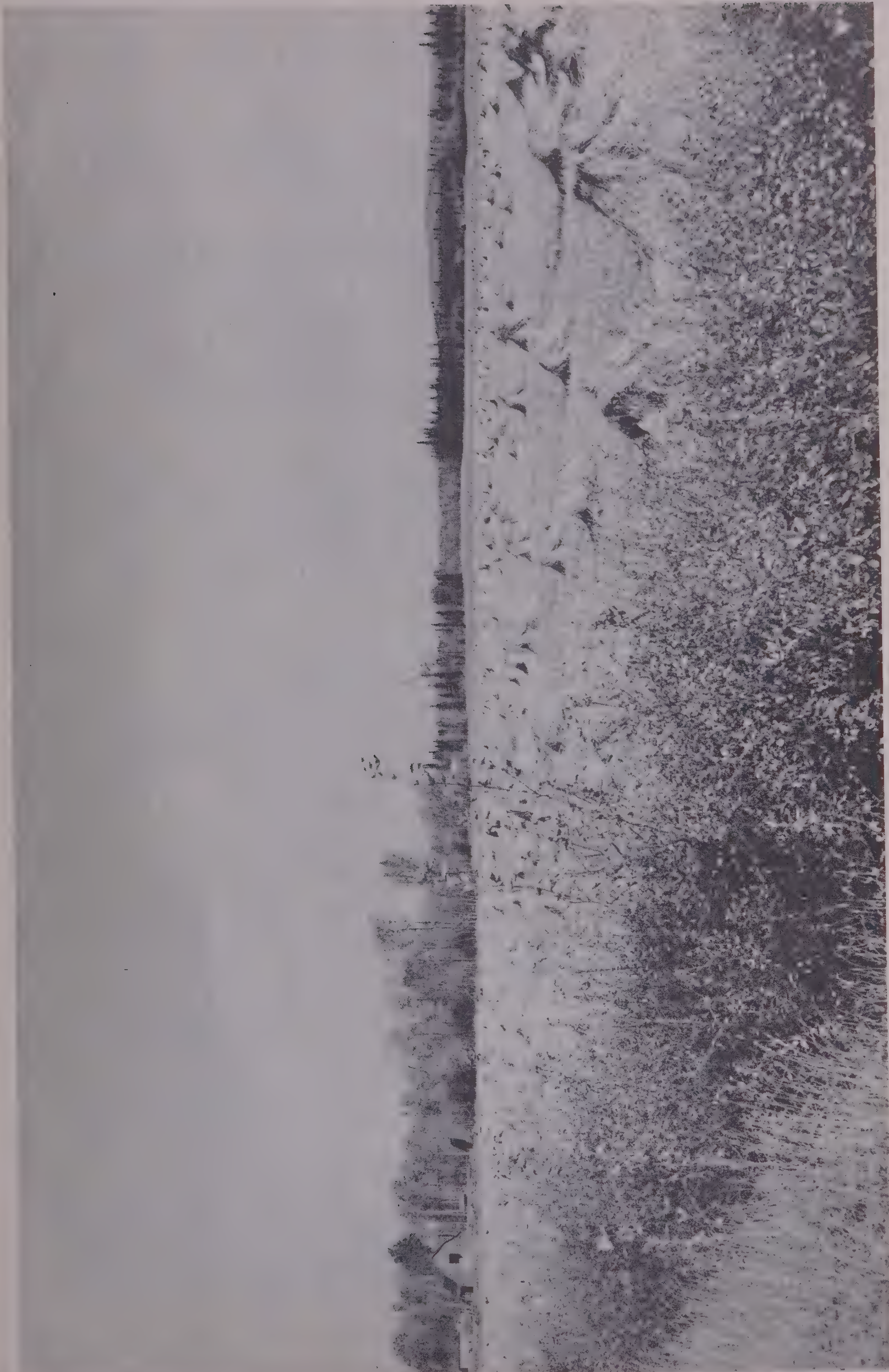
TABLE 6

INCOME BY FAMILY AND NON-FAMILY PERSONS

for Alberta Census Divisions, 1961

Census Division	Number of Families	Average Income Per Family	No. Persons Not In Families	Average Income For Persons N.I.F.
1	7,750	4,740	2,548	2,061
2	14,159	5,173	4,893	2,198
3	3,978	4,729	1,599	1,820
4	1,676	4,739	854	1,923
5	4,896	4,213	2,024	2,116
6	70,876	6,255	29,783	2,539
7	4,950	4,447	2,058	1,783
8	10,708	5,429	3,956	2,130
9	4,178	4,940	1,992	2,434
10	7,703	4,503	3,266	1,745
11	86,729	5,902	32,983	2,355
12	5,655	3,752	2,111	1,442
13	4,068	4,186	1,762	1,762
14	3,237	5,105	1,471	2,164
15	9,046	4,361	3,951	1,926
Alberta	239,607	5,602		

Source: Census of Canada 1961, Bulletin 4.1-3, Table C-3



VII AGRICULTURE

A. LAND CLASSIFICATION

The magnitude of agriculture in the area is determined to a large extent by the climate, topography, and soil. While detailed information is unavailable on these factors, some generalizations may be presented.

Topography varies from gently rolling hills in the east to mountainous terrain in the west. The majority of the area is forested. The soil is generally grey wooded with scattered areas of dark brown and shallow black. While the amount of arable land cannot be determined until a soil survey has been completed, indications are that the supply of land suitable for farming is rapidly declining and will be exhausted in the near future. Late spring and early autumn frosts are major hazards to crop production, particularly west of Edson and in the low lying areas in the eastern portion of the region. Moisture is abundant and, in fact, has been in excess in some years with the result that farming operations have been severely interrupted.[1]

Because of these limitations the area has been zoned by the Provincial Government according to its suitability for agriculture. The **yellow** and **white** zones are available for settlement, the former being subject to the regulations of the Homestead Act. On the other hand, the **Green** zone is withdrawn from settlement and is being reserved primarily for the production of wood and wood products.

A brown zone will be created in which agriculture may be permitted subject to specific leasing arrangements.

Some early settlers continue to occupy holdings in the Green zone. They have the option of disposing of their holdings to the government at any time but are not permitted to transfer land to other parties. This situation may be altered if minor adjustments are made in the boundaries of the zones. A study is now in progress by the Alberta Department of Lands and Forests to this end. Acreages of the zones are listed below:

TABLE 7

AREA OF LAND BY ZONE FOR C. D. 14

Zone		No. of Acres
Green	Willmore Wilderness Park	778,873
	Pulpwood leases	2,827,748
	Pulpwood Reserves	2,058,922
	Other	1,029,736
	Sub-Total	6,695,279
Yellow		951,387
White		20,534
	Total	7,667,200

Source: Forest Surveys and Planning Branch, Dept. of Lands and Forests.

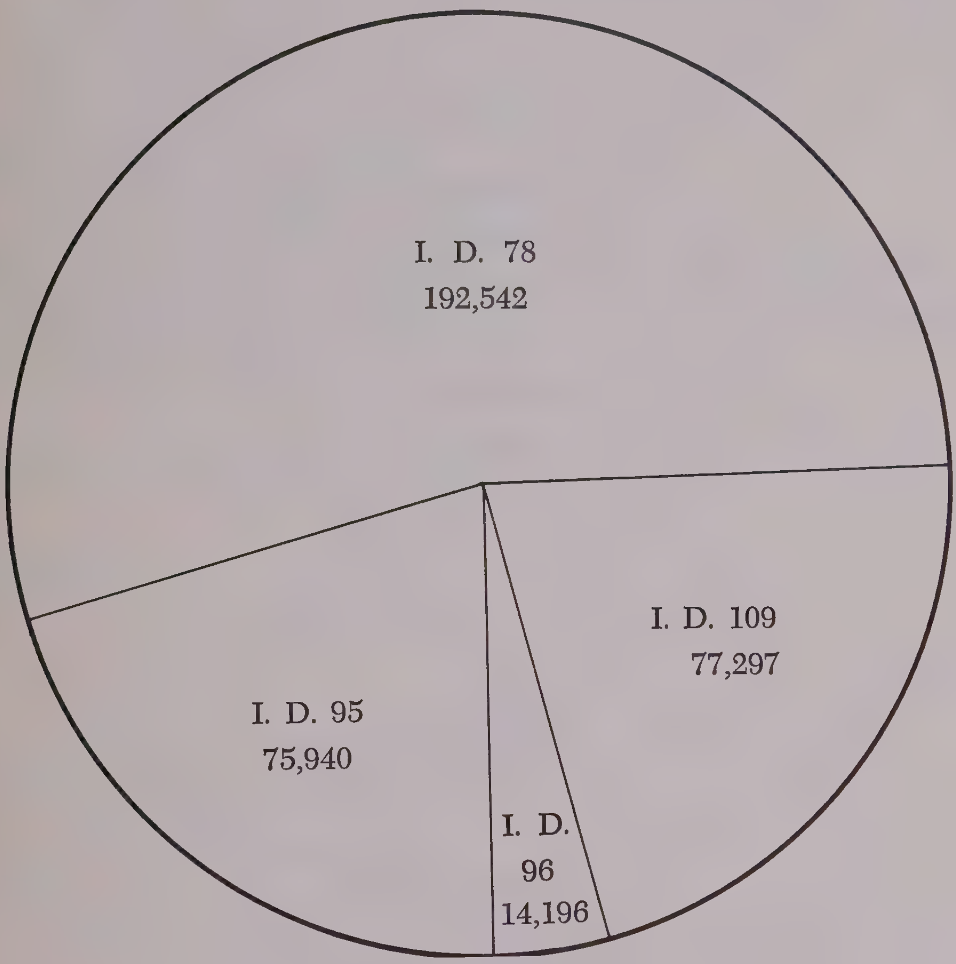
1. More information on soils and topography is available from the Research Council of Alberta in the "Preliminary Soil Survey Report": 64-2. Data is available on climate from the Department of Transport, Meteorological Branch, in "Climatic Maps of the Prairie Provinces for Agriculture—Climatological Studies Number 1" by G. A. McKay.

B. FARM LAND

In 1961 only 4.7% of the total area or 359,975 was owned or leased by farmers, most of which was located in the yellow zone. Furthermore, the distribution of land according to Improvement Districts shows that over half of the farm land was in I. D. 78.

FIGURE 9

AREA IN FARM LAND BY IMPROVEMENT DISTRICTS



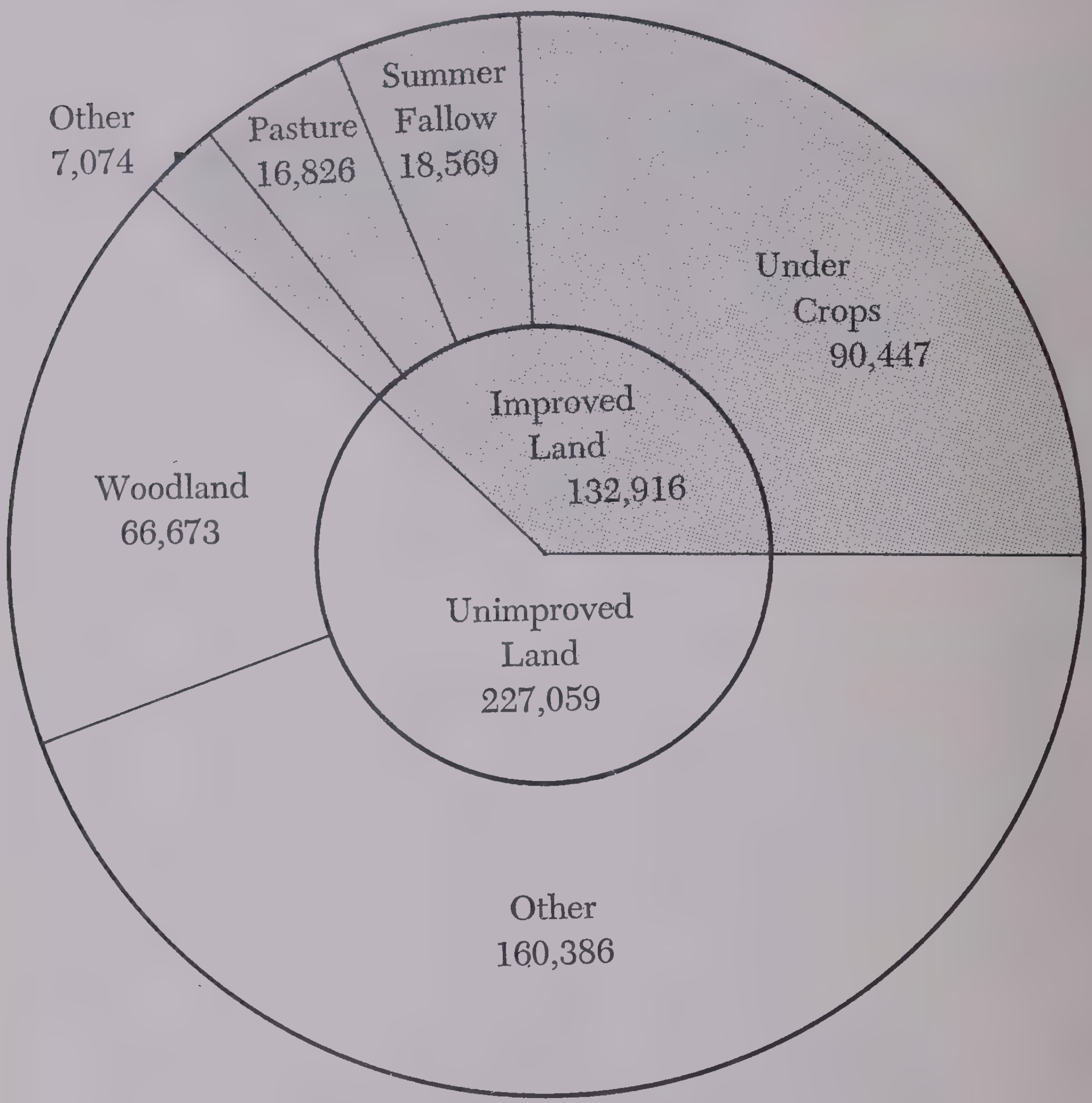
Source: Census of Canada 1961, Bulletin 5.3-1

At the present time approximately 50% of the land available for settlement is occupied. Much of the remaining 50% is unsuitable for crop production. Over 85% of the farm land is privately owned.

The amount of land which has been improved constitutes slightly over one-third of the land operated although additional land is available for improvement on most of the existing farms. There is a small percentage of farmers, primarily in the eastern fringe, who have improved most of their available land and are concerned with enlarging their farms.

FIGURE 10

USE OF FARM LAND IN C. D. 14 – 1961
(acres)



Source: Census of Canada, Agriculture, 1961, Bulletin 5.3-1.

C. LAND USE

Cropping practices in the survey area are significantly different from the rest of the province. Hay Land constitutes a much higher percentage of land under crops in C. D. 14 than in the province. Similarly, there is a lower percentage of wheat and barley grown in the area compared to the province.

Table 8 shows the percentage of land allocated for the production of crops.

TABLE 8

PERCENTAGE OF IMPROVED LAND UNDER CROPS[1]
1961

Kind of Crop	C. D. 14	Alberta
Wheat	12	37
Oats	25	17
Barley	16	19
Mixed Grains	2	2
Tame Hay	40	16
Oats for Hay	3	3
Other Crops	2	6

D. NUMBER OF FARMS

Following trends in the province, the number of farms in C. D. 14 has decreased in recent years. In Alberta from 1951 to 1961 the number of farms decreased by 13% while the average number of acres per farm increased by 23%. By contrast in C. D. 14, the number of farms decreased by 25% while the number of acres per farm increased by 21%.

The rapid decrease in the number of farmers is a reflection of alternative employment opportunities in the area.

TABLE 9

NUMBER AND SIZE OF FARMS

	C. D. 14			ALBERTA	
	1951	1961	1965	1951	1961
Number of Farms	1,309	973		84,315	72,212
Average Size of Farm (acres)	306	370	447	527	645

Source: Census of Canada 1961 and Survey of Agriculture, Farm Economics Branch.

E. INCOME

While 1.3% of Alberta's farmers are located in C. D. 14, they receive only 0.4% of the province's income from the sale of agricultural products. This is due partly to the smaller size of farms, but more particularly to the large number of farmers earning the majority of their income from non-farm employment. In 1961, 53% of the farmers were engaged in some off-farm work. In 1964 the figure rose to 62%. As a consequence, the incomes from the sale of agricultural products for a large number of farmers was low and thus the low averages.

1. Source: 1961 Census of Canada Bulletin 5.3-1 and Farm Survey 1965.

The average gross family incomes are shown in the following table.

TABLE 10

AVERAGE FARM INCOME IN C. D. 14 IN DOLLARS[1]

	1951	1961	1964
Income from sale of farm products	1,250	1,876	2,519
Non-Farm earnings	Not Available	822[2]	2,110
Total		2,698	4,629

The distribution of the income per farm indicates that twenty per cent of the farmers in C. D. 14 earned less than $250 in 1961 from the sale of agricultural products compared to six per cent for the province. Furthermore 76% of the farmers in C. D. 14 earned less than $2,500 from the sale of agricultural products compared to 26% for Alberta as shown in Table 11.

TABLE 11

VALUE OF AGRICULTURAL PRODUCTS SOLD

June 1, 1960 to May 31, 1961

Value of Products Sold $	Per Cent of Alberta Farms	Per Cent of C. D. 14 Farms
25,000+	2.7	0.3
15,000 - 24,999	4.3	0.2
10,000 - 14,999	6.9	0.7
5,000 - 9,999	21.8	6.4
3,750 - 4,999	11.2	6.1
2,500 - 3,449	18.4	10.0
1,200 - 2,499	12.5	23.8
250 - 1,199	13.3	32.1
Under 250	6.3	20.4
Institutional	0.2	—

Source: Census of Canada 1961. Bulletin 5.3-1.

Incomes of commercial farmers in the survey area compared more favourably with the province. Commercial farmers were defined by the Dominion Bureau of Statistics as those with receipts from the sale of agricultural products of $1,200 or more. Average income in 1961 of commercial farmers in C. D. 14 was $5,022 compared to $6,742 for Alberta.

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1. Ibid.
2. Average number of days of part-time employment multiplied by $12.80, the general labourer wage rates as reported in the 1960 survey of the Department of Labor.

F. VALUE OF FARMS

Value of farms have been rising steadily for a number of reasons. Land values have increased. There are more improvement to land, and more machinery and livestock per farm. The comparisons are shown below as assessed by farmers themselves.

TABLE 12

AVERAGE VALUE OF FARMS IN DOLLARS[1]

	C. D. 14	ALBERTA
1951	8,740	21,225
1961	16,710	37,118
1964	26,930	....

The investment in land has almost doubled in the last four years, while the investment in machinery and equipment has increased by approximately 50%. Similarly, the value of livestock per farm has increased, but only by one third. Investment in machinery and equipment appears to be excessive in view of the relative returns from the sale of field crops and from livestock. Furthermore, the investment in machinery and equipment per improved acre in 1961 was twenty nine dollars in C. D. 14 compared to twenty two dollars for the province.

TABLE 13

AVERAGE INVESTMENTS PER FARM IN C. D. 14 IN DOLLARS[1]

	1951	1961	1964
Machinery and Equipment	2,459	3,941	6,176
Livestock and Poultry	2,084	3,137	4,001
Land and Buildings	4,197	9,683	16,754

G. DEBT STRUCTURE

Amounts owned by farms appear to be relatively low. 82% of those interviewed indicated that they did not want credit or that their credit arrangements were adequate. The average amount of debt per farm totalled $3,150 or approximately eleven per cent of the value of their farms. Over half of the debt was used for the purchase or improvement of land. Purchase of machinery accounted for thirty-one per cent and livestock only seven per cent.

The Farm Credit Corporation is the major lender in the area. It is significant to note that with nearly two million dollars loaned as of the end of 1964, less than one percent is outstanding. The history of repayment to most other lending institutions where figures are available indicates that arrears are low.

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1. Source: Census of Canada Bulletin 5.3-1 and Farm Survey.

H. LIVESTOCK

The area appears to be well suited for the production of livestock. Hay and pasture grow rapidly and are not as subject to climatic hazards as cereals. However, only beef cattle appear to be making any major gains in numbers in recent years. Even so, the increase in cattle numbers is only slightly higher than in the province. Between 1956 and 1961 the percentage increase in C. D. 14 was 21.5 compared to 17.6 for Alberta. During the same period hog numbers almost doubled in C. D. 14 compared to a 20% gain in Alberta. Other types of livestock are relatively few in number.

The value of livestock and poultry per acre was $8.48 in C. D. 14 compared to $9.55 in Alberta in 1961.

TABLE 14

NUMBERS OF LIVESTOCK AND POULTRY IN C. D. 14[1]

	TOTAL	Per Cent Change	Number Per Farm	
	1961	1956-61	1961	1964
Horses	1,613	–22	1.7	1.3
All cattle	18,938	+22	20.0	29.0
Milk cows	3,473	+ 4	3.5	3.5
Pigs	11,278	+96	12.0	8.0
Sheep	6,417	+35	6.5	4.0
Hens and Chickens	71,430	– 2	73.0	35.0

I. MARKETING

Market outlets are few in number and are not distributed throughout the area. There are no outlets for livestock or livestock products except a creamery at Evansburg. There are three elevators within the area, located at Evansburg, Wildwood and Peers. A fourth elevator at Blue Ridge was closed in 1959 and subsequently has not been re-opened. It is presently used for storage only. An unknown quantity of grain is delivered to elevators outside the boundaries of C. D. 14. Similarly some grain is purchased outside the area for feed by local farmers.

Approximately 50% of the cattle and sheep marketed are hauled by commercial livestock haulers located in the area. Hogs on the other hand appear to be transported mainly by farmers themselves as it is estimated that less than a third are hauled by commercial carrier.

A large number of cattle are purchased by dealers, outside the area. There is only one licensed dealer in C. D. 14.

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1. Ibid.

The sale of livestock and livestock products constitutes the greatest source of farm income. In 1961 72% of the farm revenue was derived from the sale of livestock or livestock products, while the percentage had risen to 74% in 1964. Cattle continue to provide the main source of income. The volume of sales of cattle has sharply increased in the last few years while the percentage of income from most other livestock products have decreased. Since 1964 was a relatively poor year for hay, it is to be expected that the income from the sale of this commodity was lower than usual.

The following table compares the proportion of income derived from various agricultural products in the area and between the province and C. D. 14.

TABLE 15

PERCENTAGE INCOME FROM SALE OF PRINCIPAL FARM PRODUCTS[1]

KIND OF PRODUCT	ALBERTA 1961	C. D. 14 1961	C. D. 14 1964
Cattle	36.0	27.9	41.5
Hogs	11.2	20.3	14.8
Sheep	0.8	1.8	1.4
Poultry and eggs	3.1	3.2	2.7
Dairy Products	6.8	12.7	13.6
Wheat	22.8	5.5	11.8
Other grain	8.9	8.0	6.8
Hay and Fodder	1.1	4.4	1.4
Root crops	1.9	4.9	0.1
Forest products	—	3.4	5.9
Other	7.4	7.9	—

Revenue per farm in C. D. 14 relative to that of the province provides an indication of the returns from each type of agricultural production. However, because the inventory per farm varies considerably, the returns per animal gives a more realistic assessment of efficiency of production. Each farm in C. D. 14 reporting cattle had an average inventory of 25 head compared to 49.5 in Alberta. In other words there were 51% as many cattle on farms reporting cattle in C. D. 14 as in Alberta. Similarly the value of cattle sold per farm reporting sales in C. D. 14 was $846 in 1961 compared to $3,154 for Alberta or 27% of the provincial figure. The discrepancy may be explained partly by the fact that most animals in C. D. 14 are sold as calves and many are of low quality.

Similar comparisons are presented in Table 16.

1. Ibid.

TABLE 16

COMPARATIVE INCOME AND INVENTORY OF FARM ANIMALS OF C. D. 14 to ALBERTA

Alberta index = 100

Commodity	Sales Per Farm	Number of Animals Per Farm
Cattle	27	51
Hogs	65	60
Sheep	35	55
Horses	42	89
Hens and Chickens	19	58
Turkeys	12	17

Source: Census of Canada 1961, Bulletin 5.3-1

It would appear that the income per animal is generally much lower in C. D. 14 for other types of animals as well. The one exception is hogs.

J. SPECIAL FARMS

An attempt was made to determine the number of farmers who might be financially distressed. The arbitrary classification of these were:

1. Gross sales of agricultural products in excess of $250 but less than $2,500.
2. Total capital value of farm less than $25,000 and
3. Worked off the farm for less than one month.

In 1961, 285 farmers out of 973 or 30% were in this category. This percentage had dropped to 10 in 1964, and the majority of these were located in I. D. 78. Furthermore 46% of these farmers in 1961 were over 55 years of age, compared to 80% in 1964.

Farmers in the survey were asked, "if suitable alternative employment was available, what annual salary would you expect to receive before you would leave?" Sixty-six per cent would not consider moving off the farm, eight per cent indicated that they would leave if the annual salary was $4,000. The other 26% would leave if the income was considerably in excess of this figure, ranging up to $10,000 annually.

VIII FORESTRY

A. VALUE OF FOREST PRODUCTS

Since the North West Pulp and Power Co. began operations in 1957, the forest industry has changed from a lumber to a pulpwood base. An indication of the magnitude of change is shown below. In 1951, 83.1 million board feet of lumber was produced for a total value of 3.1 million dollars but by 1961, production had dropped to 34.9 million with a value of 1.1 million dollars. However by 1964, lumber production had recovered to a volume of 41.4 million FBM worth $2.3 million. Other forest products have followed a similar pattern of decreasing production, e.g. railroad ties dropped from 1.1 million pieces in 1951 to 0.1 in 1961.

In contrast, total value of pulpwood production in recent years dwarfed all other commodities. In 1964 pulpwood production amounted to 388,223 cords valued at $6.8 million, which accounted for approximately 70% of the total value of forest products produced.

TABLE 17

TOTAL VALUE OF FOREST PRODUCTS
(millions of dollars)

	1951	1961	1964
Lumber	3.1	1.1	2.7
Pulpwood	—	4.6	6.8
Other	2.0	0.3	1.0
Total	5.1	6.0	9.5

Source: Alberta Bureau of Statistics and Forestry Branch.

B. NUMBER OF OPERATORS

The decline of the lumber industry is reflected in the number of sawmills and planing mill operators. In 1958, there were 72 operators compared to 34 in 1961 and 30 in 1964. The labour force engaged in the lumber business has declined accordingly. In 1964, one operation accounted for a large fraction of the total lumber production.

C. ACREAGE IN FOREST LAND

The majority of the area is forested, with approximately three fourths of the forested area allocated to pulp leases or pulp reserves. Apart from pulp leases and reserves and Willmore Wilderness Park, there are only one million acres remaining in the green zone.

D. INVENTORY

The tree cover is predominantly pine, with aspen being the second most abundant species. The following table identifies the volume of pulpwood and sawtimber in the area, based on aerial photography from 1950 to 1961.

TABLE 18

VOLUME OF WOOD IN C. D. 14

Species	Pulpwood (millions of cords)	Sawtimber (millions M. FBM)[1]
White Spruce	8.0	4.4
Black Spruce	3.5	–
Balsam	1.7	0.5
Pine	23.6	6.1
Total	36.8	11.0
Aspen	13.4	5.9

Source: Forest Surveys and Planning Branch, Dept. of Lands and Forests.

Over fifty percent of the volume of pulpwood and sawtimber is located within the present pulpwood lease areas, and is therefore controlled primarily by the pulp companies. A large portion of the remainder is in the pulpwood reserves, leaving a small fraction of the total volume in areas outside the pulp leases and reserves.

On an 80 year sustained yield basis, annual potential production of pulpwood is estimated to be 460.5 thousand cords. Similarly on a 120 year sustained yield basis, the annual potential production of sawtimber is 92.1 million board feet. The above figures do not include aspen volume.

Over one half of the forest potential lies within the boundaries of the present pulpwood leases.

TABLE 19

ESTIMATED ANNUAL POTENTIAL CUT

	Pulpwood 80 Year Rotation (cords)	Sawtimber 120 Year Rota*ion (M. FBM)[1]
Pulp Co. Leases	253,363	54,811
Pulp Co. Reserves	137,842	29,773
Green zone outside pulp leases and reserves, excluding Willmore Wilderness Park.	58,216	7,238
Yellow zone	11,111	280
	460,532	92,102

1. M. FBM is thousands of board feet.
1. Ibid.

IX RECREATION AND TOURISM

A. INTRODUCTION

The development of tourist and recreational facilities in an area depends primarily upon the present and potential resources and demand for these facilities by both the local residents and tourists from other areas. Census Division 14 is ideally situated with respect to both of these factors as its recreational potential has scarcely been exploited. Each year the demand for these facilities becomes greater. Evidence of the increased demand is reflected in tourist trade statistics, which indicate a 629% increase in the 1946-1963 period in Alberta. Areas such as C. D. 14 that are richly endowed in natural resources can benefit immeasurably from this trend, particularly as accommodation, access and other facilities improve.

B. INVENTORY

1. National Parks

Although there are no National Parks located within C. D. 14, Jasper National Park forms its western boundary. In Jasper, the largest mountain park in the Canadian west, such activities as sightseeing, hiking, fishing, boating and winter sports await the outdoor enthusiast. The major access route, Highway 16, bisects C. D. 14 and provides a good all weather route to the park.

2. Provincial Parks

Provincial Parks in C. D. 14 include the Pembina River Park, located between Evansburg and Entwistle, and Entrance Park, situated north-west of Hinton. The former park, consisting of 493 acres, is primarily recreational, while the latter, comprising 6,400 acres, is both scenic and recreational. Park facilities include swmming, fishing, boating, camping, etc.

3. Municipal Parks

Additional parks are maintained by the various towns and Improvement Districts. Among the major parks are those located at Chip, Surprise, Bear and Carson Lakes. Most of the larger towns also maintain parks offering facilities similar to those of the larger parks only on a much smaller scale.

4. Highway Campsites

The Alberta Department of Highways construct and maintain campsites throughout the province to provide the following facilities: kitchen shelters with stoves, tables, firewood, water and toilets. There are nine of these campsites in C. D. 14, mostly located along Highway 16.

5. Forest Service Recreation Areas

Forest Service recreation areas are developed and maintained in forest areas by the Provincial Department of Lands and Forests for the convenience of the travelling public. Eleven of these areas are in the two major forests of C. D. 14. All are equipped with shelters and stoves, tables and toilets. A few have fireplaces in addition to the named facilities.

6. Hunting and Fishing

Hunting and fishing are two of the most important recreational activities in which both local and outside residents may engage.

a. Hunting—Approximately four-fifths of the area is forested, providing cover and food for many kinds of wildlife, particularly moose, deer, elk, ruffed grouse, sharp-tailed grouse and to a lesser extent pheasants and Hungarian partridge. Other available game includes mountain sheep, mountain goat, cariboo, black and grizzly bear. Several of the wildlife specimens taken in C. D. 14 are recorded in the Boone Crockett Book of Big Game Records.

Hunting, both game bird and big game, is one of the most important resources in the area, accounting for 35% of revenue from tourism and recreation. Controlled programs have resulted in the game population being higher at this time than at any other time in the past 100 years and improved hunter access has made it possible for a more general harvest of the wildlife populations.

b. Fishing—One of Alberta's top sport fishing districts is situated in C. D. 14. Arctic grayling, Rocky Mountain whitefish, rainbow trout, brown trout and brook trout are found in the streams originating on the east slopes of the Rockies. Northern pike, lake trout and lake whitefish are found in the numerous lakes. Except in National Parks or specified areas where angling is subject to seasonal regulations, fishing is open season. Good access roads are available to most streams, however the best fishing is at the more inaccessible locations. More than any other form of recreational activity, sport fishing contributes more and has more potential for contributing revenue to the economy of the area.

7. Other Recreation

Additional recreational facilities and activities are available to people in the area.

The golf enthusiast has a choice of four nine hole courses, located at Hinton, Edson, Whitecourt and Evansburg.

Swimmers have their choice of numerous lake resorts or two outdoor pools at Edson and Hinton, the latter being heated.

Another form of water recreation is boating. Although there are no major water-based recreational areas in the area, the increasing popularity of the sport and the availability of numerous lakes could lead to future development.

Winter recreation is popular in the area. Most communities have skating rinks and several have indoor curling arenas. Presently, relatively small scale ski developments are located at Hinton and Edson, however, the area has the potential to develop into one of the better winter recreation areas in Alberta.

Accommodations for people in the area for recreational or other purposes include thirteen hotels, twenty motels, seven trailer parks and at least two guest ranches. Combined, these facilities provide over 500 rooms for travellers and vacationers.

C. ECONOMIC APPRAISAL[1]

The following table shows the present value of revenue from recreation as almost five million dollars and a potential of at least ten million dollars.

TABLE 20

REVENUE FROM RECREATION

Resource	Annual Present Revenue	Annual Potential Revenue
Big Game	$ 1.5 Million	$ 3.5 Million
Game Birds	.2	.5
Fur Bearers	.1	.2
Sport Fishing	2.5	5.0
Tourism	.5	1.1
TOTAL	$ 4.8 Million	$10.3 Million

Recreation not only provides a large annual revenue but is compatible with other industries such as agriculture and forestry. This resource not only will reap greater benefits to the general public than other resources, but is one that can be utilized along with other resources.

D. CONCLUSIONS

Among Alberta's major industries, recreation and tourism ranks third in value. For the past few years, revenue from the industry has exceeded $100 million annually. According to the preceding table, this would indicate that C. D. 14's share of this figure is somewhat less than 5%. However, the area can meet the increasing demands for recreational facilities. The supply of resources is available in C. D. 14 and, if fully developed, can provide the base for one of the most impressive recreation areas in the west.

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1. Compiled by John Stelfox and Associates, Fish and Wildlife Branch, Alberta Department of Lands and Forests.

X SUPPORTING SERVICES

A. LOCAL GOVERNMENT STRUCTURE

Supporting services are those services such as government, medical and law enforcement which are necessary for the proper functioning of an area.

Census Division 14 consists of improvement districts number 78, 79, 95, 96 and 109. An improvement district does not have, in any strict sense of the term, local government for the corporate body for each of these areas is the Minister of Municipal Affairs in the Provincial Government. Improvement districts are governed, taxes set, and money dispersed from Edmonton; however, most improvement districts have locally elected advisory boards which, at the present time in C. D. 14, act more frequently as road committees than as advisers to the Department of Municipal Affairs. Other services usually handled by a municipal government such as building roads and administering welfare, are carried out by the appropriate provincial department.

Towns and villages, in contrast to I.D.'s, have regular local government. The towns of Edson and Hinton are governed by an elected body of a mayor and six councillors. Policies set down by this body are carried out by an appointed body under the direction of a "town manager" or "secretary". Whitecourt is classified as a "New Town" which is a status enabling it to borrow money and carry out certain programs on a wider scale than is ordinarily possible. Two members of the governing body of five are appointed by the Provincial Government, the three remaining are elected locally. The village of Wildwood is governed by a five-man elected council with one councillor chosen as "mayor", whereas the village of Evansburg is governed by a three-man elected council with one chosen as "mayor".

B. EXPENDITURE AND RECEIPTS

The budgets of the various governmental units range from a low of $10,000 for I.D. 96 to a high of $640,000 for Hinton (1963 figures). Improvement districts spend about 84% of their budget on schools, roads and bridges. (About 50% on schools and 34% on roads and bridges). The remainder is distributed over a number of items such as welfare, hospitals, health services, senior citizens' homes, pests, weeds, etc. Again the largest single item in the budget of the towns and villages is education (40%), with the next largest item being public works (11%). Other items in order of proportion of expenditure are protection to persons and property, general government, debt charges, sanitation and waste removal, utilities, welfare, etc.

The major source of income for the improvement districts is taxes, with an average of 83% coming from this source. Secondary in order of importance is provincial grants with an average of 13%. Other sources of income are leases and permits, interest, etc. As in the case of the improvement districts of C. D. 14, the largest source of income for the towns and villages is taxes (property, business and other), with an average of approximately 76% coming from this source. The second largest source is "contributions, grants and subsidies" which supplies an average of 12% of the revenue of the towns and villages. The remainder comes from licenses and permits, rents, concessions and franchises, fines, interest and tax penalties, service charges, community services, etc.

C. WELFARE

The Provincial Government maintains regional offices of several of its departments in Census Division 14, namely, the departments of Welfare, Lands and Forests, Municipal Affairs and Highways. Welfare is one of the departments that seems to be the concern of a large number of people in C. D. 14. Welfare covers various types of payments by the government to individuals. Categories included under the general term of welfare are Family Allowances, Old Age Pensions, Social Assistance and Social Allowance, the latter two being usually what people refer to when they discuss welfare.

Social Assistance is a temporary type of aid. If a person is temporarily out of work or ill he can apply for some assistance under this category to help him until he can again support himself or his family. Those people who are going to need more permanent assistance are placed under Social Allowance in which case they receive a monthly cheque from the Provincial Government. Social Assistance is contributed to by the local municipal governments at the rate of 20% of the total with the remainder of the categories of welfare paid by the Federal and Provincial Governments. In 1963 welfare expenditures by the local governments amounted to 1.7%, or $30,171, of the total budget of these governments. In 1964 the Edson Welfare Office handled a total of 530 social assistance cases. The reason given for assisting in 71% of these cases was unemployment. The second most prominent reason was medical (20%). Very few of these cases were farmers.

An estimate made from the records in the Edson Welfare Office indicates that in 1964 approximately $143,257.00 was paid out in social allowance to about 133 cases in the Edson region, an average of $1,077.12 per case per year. The Barrhead regional office estimates that there are about 33 cases of a similar nature in I.D. 109 and assuming a similar rate, of payment, this would add $35,544.96 to the above total for an overall total for the census division of $178,801.96 in 1964.

D. HEALTH

1. Hospitals

There are two hospitals in Census Division 14, one at Hinton and one at Edson. There is also a hospital planned for Whitecourt. Other areas in Census Division 14 are served by hospitals outside of the census division; e.g. the Whitecourt area is at present served by the Mayerthorpe hospital and the Evansburg-Wildwood area by Drayton Valley hospital. Table 21 listing the hospital bed capacities shows that the Edson and Hinton hospitals have a percentage occupancy of well below the provincial average in both 1962 and 1963. The Drayton Valley hospital had a percentage occupancy above the provincial average in 1962 and slightly below the provincial average in 1963, while the Mayerthorpe hospital had a rate well above the provincial average in both years. With the new hospital to be built in Whitecourt some of the pressure will be removed in the Mayerthorpe hospital but the Drayton Valley hospital can probably be expected to continue at a high percentage occupancy.

TABLE 21

Hospital	Capacity	% Occupancy 1962	% Occupancy 1963
Edson	36	67.4	57.4
Hinton	27	65.1	56.5
Drayton Valley	35	85.3	76.2
Mayerthorpe	20	94.0	82.1
Provincial Grand Total	8,069 8,307 (1963)	81.2	77.5

Source: Annual Report of the Alberta Hospitalization Benefits Plan, 1962 and 1963.

The trend in the construction of hospitals is to build larger and better equipped hospitals. There is also a trend toward regionalization in hospital services. The province has some very large central hospitals in cities like Edmonton and Calgary, smaller but well equipped regional hospitals such as those in Lethbridge and Medicine Hat, as well as small community hospitals. Most of the routine hospital care can be done in the community hospitals (approximately 80%). Cases that cannot be treated in these hospitals can be referred to the regional hospital (about 15%) and the remaining 5% of exceptional cases are referred to the large central hospitals in Edmonton and Calgary. Location of a new community hospital depends upon a number of factors, particularly the location of supporting medical services, staff and population. As a general rule there is to be a ratio of five hospital beds to every one thousand population. This would mean that it would take approximately six thousand people to support a thirty-bed hospital. The medical profession also says that a person should not live further than one hour's drive (approximately 50 miles) from a hospital. This would place hospitals at a maximum of 100 miles apart. This does not mean, however, that all hospitals are to be 100 miles apart for in Alberta they are usually built much closer than this.

2. Doctors

There are ten doctors resident in Census Division 14 (1964) and nine of them are practicing. There are also three doctors that operate a part-time clinic in Whitecourt. This gives a doctor to population ratio of one doctor for every 1,752 persons. The Alberta average is approximately one physician or surgeon to every 906 persons. The Alberta average is considerably lower than the Census Division 14 average and may indicate that medical service is not as adequate in Census Division 14 as it is in most of Alberta. The ratio may improve when the hospital is built in Whitecourt and would improve even more if a hospital were to be built in Evansburg or Wildwood.

3. Health Units and Municipal Nursing Services

Census Division 14 is served by the Edson and Lac St. Anne Health Units; the former serves I.D. 78, 79, 95 and 96, and the latter serves I.D. 109. The Edson Health Unit Staff, 1964, with offices in Edson, Hinton and Drayton Valley consists of one Medical Health officer, two part-time Dental officers, five Public Health nurses, one Municipal nurse, one full-time Dental Hygenist, and one Health Inspector. A dental hygenist was employed by the Edson Health Unit for the first time in 1963.

A health unit is a locally autonomous unit financed jointly by local taxes and Provincial Government grants which operates under the direction of a local board composed of representation from the various government councils in the area. The health unit staff is mainly for preventative work and carries out various health education programs, school health examination programs, communicable disease control and health inspections of restaurants, etc.

In areas that are remote and do not have other medical services the Provincial Government operates a Municipal Nursing Service. This service is not designed to compete in any way with regular medical service but is to supply a limited service to areas which have no hospital or doctor, poor transportation facilities, not enough population to support a hospital or a doctor, and a low level of living.

E. LAW ENFORCEMENT

There are four detachments of R.C.M.P. with offices at Whitecourt, Evansburg, Edson, and Hinton. In addition the towns of Edson, Hinton, and Whitecourt each have a small municipal police force. There was a total of 26 law enforcement officers for the Census Division in 1964. The crime rate in C. D. 14 tends to rise when there is an influx of a large number of construction workers and declines when such workers leave.

F. SUMMARY

In general, supporting services in the Census Division seem to be adequate but the low population density of the area creates some special problems, especially in the area of health services. In 1964 there was one doctor for every 1,752 persons, which is almost double the provincial ratio. People in the eastern end of the Census Division must also travel a considerable distance to a hospital. These factors seem to indicate that medical service is inadequate in some parts of the area.

A SELECTED LIST

OF

POTENTIALS

FOR

DEVELOPMENT

XI A SELECTED LIST OF POTENTIALS FOR DEVELOPMENT

The use of material in this volume and the rate at which economic development takes place depends to a great extent upon the people of C. D. 14 and their ability and desire to adapt to changing conditions. Abilities to use new technology and to take advantage of opportunities are closely correlated with development. The following are selected suggestions and factors which may aid in developing the area.

A. HUMAN RESOURCES AND EDUCATION

1. In general the people of C. D. 14 have a lower level of education than the average of the province. Industry in the area often must look outside of the area for persons with the level of education and skills which it requires. Wider use of the various adult educational programs, which are at present available from various sources, as well as the development of programs to fit the unique conditions of C. D. 14 would help this bridge gap.

2. The dropout rate in C. D. 14 is very high and some attention should be directed toward encouraging students to stay in school longer and toward encouraging training in those skills which will be in demand. One approach to the problem is more intensive student counselling.

3. Rural areas often have difficulty in attracting good teachers. Factors in addition to salary which may be influential in attracting teachers are living accommodations, access to recreational and cultural facilities, the status of teachers in the community and the attitude of people in the community toward education. Some attention can be directed to impress these factors when plans are made to attract new teachers.

B. INDUSTRY

1. Because of the abundance and variety of natural resources along with a high degree of enterpreneurship among the local organizations, the establishment of more primary manufacturing industries appears certain. Capital formation within the area is likely to be sufficient to initiate small to medium sized industries although parts of the area have experienced severe financial losses from investment in unsuccessful enterprises.

2. Because of the declining importance of agriculture as an employer of human resources, industry will have to absorb the redundant farm population. This will be primarily a problem of retaining as there is a shortage of skilled labour.

3. The abundance of peat moss and the excellent market prospects indicate that the expansion of peat moss mining and processing is feasible.

4. Suggestions for industries that may find C. D. 14 a suitable place to locate include the following.

Forest Oriented Industries

Chip board or particle board.

Box, crates and pallet mills.

Bee hive construction.

Expansion of the construction of pre cut frame or log structure.

Resume the manufacturing of charcoal.

1. Mineral Oriented Industries

Mining is a capital intensive operation and the investment decisions are made primarily by national or international corporations. For this reason the opportunity for local people to influence the development of minerals, oil and gas is limited. Nevertheless, the development of mining oriented industries probably has the greatest potential in the long run.

2. Recreation Oriented Industries

The development of recreation throughout most of the area is likely to occur in the next few years. Accompanying this development will be a need for more motels, restaurants, outfitters, fish farms, cottages, cabins, etc. Industries might be developed to manufacture and supply recreational equipment such as boats, skiis and runs, pleasure boats, rafts, camping and hiking equipment and prefabricated cottages.

3. Agricultural Oriented Industries

While the number of farmers is expected to decline there is a potential for agricultural oriented industries such as an alfalfa dehydration plant, expansion of peat processing, feed mill, seed cleaning plants and livestock buying station.

C. AGRICULTURE

1. The majority of farmland appears to be better suited to the production of livestock than to the growing of cereal crops, although accurate data is not available to support this observation. Additional information on soils, climate and the relative returns from both agricultural and non-agricultural pursuits is required to fully assess the potential of the area.

2. While cattle constitute the bulk of the returns from the sale of agricultural products, the return per animal is approximately half of the provincial average. The reasons for the low returns per animal are the sale of calves as stockers and inferior beef type. An intensive program to encourage more finishing of beef cattle and the improvement of quality would be appropriate.

3. It is estimated that cattle numbers could be doubled on the existing holdings without breaking any more land.

4. Other factors which may contribute to a more viable livestock economy are:
   (a) Establishment in the area of a feed mill.
   (b) Establishment in the area of marketing facilities.
   (c) More use of credit, particularly short-term and intermediate.
   (d) Formation of feeder associations.

5. Hog production is proportionately much lower in C. D. 14 than in the Divisions 12 or 13 where comparable conditions prevail. Production could be doubled without adding materially to the overall capital investment. Perhaps the main reason, other than personal, for the small numbers of hogs in the area is that marketing facilities are inadequate.

6. Of the 15 fluid milk producers who supply the Evansburg creamery, eleven are located in C. D. 14. Nine of these are from the Edson area with the other two closer to Evansburg. The fluid milk market is satisfied and any increase in demand would be reflected in larger quotas being allotted to the present shippers. Consequently, there is little potential for more fluid milk producers.

7. Cream production could be increased annually and the seasonal variation of production could be reduced to the benefit of all.

8. Poultry and egg production is not likely to become a viable enterprise because of the distance to markets and the absence of local marketing facilities.

9. The potential for the expansion of cereal crops is unknown until more data on soils and climate is obtained. Nevertheless, with the application of fertilizer to improve yields and to shorten the maturity, additional acreages could be allocated to cereal crops.

10. Yields of hay crops are high and could be increased further with the application of fertilizer. Risk of weathering from excessive rainfall is the most limiting factor. The use of hay conditioners or harvesting in the form of silage would tend to reduce the risk.

11. The level of technology and management of farms could be raised by a greater use of the services provided by the Extension Branch. Specialists from the other branches of the Department of Agriculture could also be used more effectively.

12. The need for farm enlargement at the present time appears to be secondary in importance to the devlopment of existing holdings.

13. Credit appears to be adequate for over 90% of the farmers in the light of their present aspirations. With the application of improved technology and management, the demand for credit will rise and will be used to expand holdings and improve present operations.

14. Capital invested in machinery and equipment appears to be excessive in view of the small acreages in field crops and the dominant position of livestock in the economy. The adjustment of capital to each enterprise is again a management decision which will be influenced by more study on the part of individual operators.

15. The proximity of labour markets, together with the increase in price of land and low taxes will tend to perpetuate the part-time farmer.

16. Lack of farm labourers is a major problem.

D. FORESTRY

1. Development of the forestry resource is subject to a number of factors beyond the control of local ARDA committees. Pulp companies have negotiated with the government to allocate certain lands as pulpwood leases and reserves. Operations within the leases are carried out by or with the approval of the pulp companies. The reserve area of North West Pulp and Power may be incorporated into the lease in 1968. As a consequence any operations not affiliated with the pulp companies will be confined to a relatively small fraction of the total area.

   Because the economy is stimulated to a large degree by pulpwood production and manufacture, it appears desirable to safeguard the quantity of pulp available. This amount appears to be minimal for future uses over an eighty year sustained yield basis. It therefore would be desirable to consider the pulpwood potential of land before action is taken to convert the land to agricultural uses.

2. Large quantities of aspen are presently of little economic value because of a lack of suitable markets.

3. The presence in the green zone of a substantial number of farms is a major problem to long range planning. Alternative solutions include purchasing these holdings, which is being done on a piecemeal basis, or transferring certain of these lands to the yellow zone. A study is now in progress by the Department of Lands and Forests which will alleviate much of this problem.

4. Many farmers owning woodlots appear to be disinterested in woodlot management, an observation that was also made in a study by W. H. McKillop and D. Fregren.* In view of the potential value of woodlots, it would appear desirable to accelerate Extension Services in forestry.

5. Results of the present study conducted by the Department of Lands and Forests to determine the relative returns from agriculture and forestry will be useful in determining the most appropriate allocation of land. In the meantime, the disposition of forested Crown land in the yellow zone could be curtailed as the land may eventually be more productive under forestry. Also, during the interim period, the availability of miscellaneous permits by local residents to harvest wood from the land will supplement income from other sources of employment. This has been an important factor in the local economy in recent years.

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* In an unpublished study by the Federal and Provincial Forestry Branches. "A survey of Primary Forest Production from Private Land in Alberta".

E. RECREATION AND TOURISM

1. Economics pertaining to this resource indicate that potential revenue could be at least doubled, to become a ten million dollar industry. Since hunting and fishing represent at least 75% of this figure, it is important to realize that what is needed is the improvement and development of preserves, necessarily involving increased expenditure and continued long-range planning. Conservation practices could be more closely adhered to in order to maintain and preserve the wildlife domains.

2. Development and maintenance of a continuing promotion program on tourism and recreational attractions of the area, emphasizing scenic attractions, accommodations and services available. This would necessitate more co-operation among local groups and involve promotion on a regional basis, e.g. regional planning bodies.

3. Improved access to scenic and recreational attractions in the form of new and improved roads and the promotion of commercial facilities to meet the corresponding public needs.

4. More emphasis upon the development of winter sport facilities, particularly skiing. Factors, such as a large population to draw from and the natural suitability of the area to ski developments should be utilized.

5. Utilization of the natural attractions of the Coal Branch area e.g. mineral springs, caves, abandoned mines, ghost towns, mountain terrain, fishing and hunting, for a tourist complex.

F. GOVERNMENT

The policies of governments and methods of administering these policies have a very direct bearing on the development of an area. The following are some ways in which governments can contribute to developing the full potential of C. D. 14.

1. As stated previously the major part of local municipal government is carried out by the Department of Municipal Affairs in Edmonton. From the point of view of low administrative cost and operating efficiency this is probably a very good system. These low costs are probably due to the use of professional judgements in decision making and the economies of scale. However, from the point of view of "government by the people" where the ideal is to have the people become responsible for their own government, this system of government from Edmonton falls far short of the ideal. Perhaps some of the advantages of both systems could be achieved by:

a. Making municipal units large enough to be able to take advantage of some of the economies of scale and,

b. Instituting courses for those most directly involved in such government so that decisions can be made intelligently on the basis of fact. The processes and alternatives involved in local governments today are extensive and complicated and such a course would lead to improved decision making and thus more efficient local government.

Returning local government to the people and taking into account the above suggestions would be one method of attempting to achieve both the value of efficiency and the value of "government by the people".

2. Although, at the provincial level, government is theoretically a single unit under the direction of a central cabinet, in actual practice each department carries out its own programs with a minimum consideration of the programs of other departments. For the most part this works well but in some instances increased co-ordination would be of benefit to all departments. Examples of this are land sales, settlement, and building of roads in unsettled areas, location of new industries, welfare, education, etc.

3. Government policies are usually made to fit a specific need at a certain period in time. Conditions may change but government policies may continue to be used even though they may have lost their original value. One such policy (and there are undoubtedly others) is the Homestead Policy. In light of the necessity for a high investment in farm equipment and supporting services it may be advisable to review this policy.

4. Each of the various departments of government keep statistics according to its own administrative regions. This practice makes it extremely difficult to analyze trends in resource use and economic development, and in turn it is difficult to formulate planning and economic policy. Therefore it is suggested that departments should jointly make a reappraisal of their administrative regions and also that any reorganization consider as a base the functional social and economic areas of the province.

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